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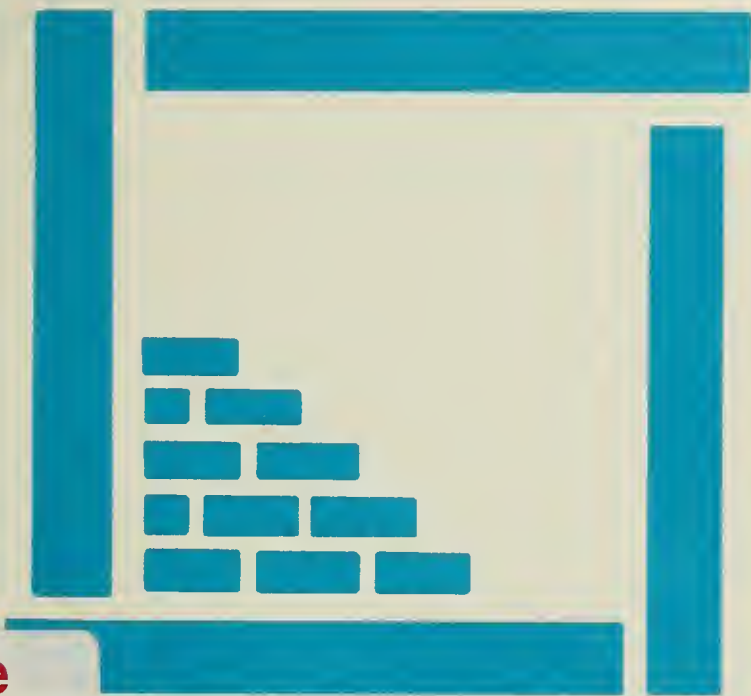
## Census of Construction Industries

CC87-I-1

INDUSTRY SERIES

### General Contractors— Single-Family Houses

Industry 1521



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# ACKNOWLEDGMENTS

Many persons participated in the various activities of the 1987 Census of Construction Industries.

The overall planning and review of the census operations were performed by the staff of the Office of the Assistant Director for Economic and Agriculture Censuses.

This report was prepared in the Construction Statistics Division. **Barry A. Rappaport**, Assistant Division Chief for Industry Surveys, was responsible for the overall planning, management, and coordination of the census of construction industries. Planning and implementation were under the direction of **A. William Visnansky**, Chief, Census Operations Branch, with primary staff assistance by **Juliana Van Berkum**, **Barbara J. Hadden**, **Edward R. Glover**, **Susan L. Hostetter**, **Shirley M. Baker**, and **Carolyn J. Stone**. Under the direction of **Jesse Pollock**, **Edward K. Ricketts** and **Dennis K. Duke** developed the sampling plans and variance and estimation specifications.

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If you have any questions concerning the statistics in this report, call (301) 763-7546.

# **1987**

# **Census of Construction Industries**

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INDUSTRY SERIES

## **General Contractors— Single-Family Houses**

Industry 1521

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Issued March 1990



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# INTRODUCTION

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## PURPOSE AND USES OF THE ECONOMIC CENSUSES

The economic censuses are the major source of facts about the structure and functioning of the Nation's economy. They provide essential information for government, business, industry, and the general public.

*Economic censuses furnish an important part of the framework for such composite measures as the gross national product, input-output measures, production and price indexes, and other statistical series that measure short-term changes in economic conditions.*

*Policy-making agencies of the Federal Government use the data, especially in monitoring economic activity and providing assistance to business.*

*State and local governments use the data to assess business activities and tax bases within their jurisdictions and to develop programs to attract business.*

*Trade associations study trends in their own and competing industries, and keep their members informed of market changes.*

*Individual businesses use the data to locate potential markets and to analyze their own production and sales performance relative to industry or area averages.*

## AUTHORITY AND SCOPE

Title 13 of the United States Code (sections 131, 191, and 224) directs the Census Bureau to take the economic censuses every 5 years, covering years ending in 2 and 7. The 1987 Economic Censuses consist of the—

- Census of Retail Trade
- Census of Wholesale Trade
- Census of Service Industries
- Census of Transportation
- Census of Manufactures
- Census of Mineral Industries
- Census of Construction Industries

Special programs also cover enterprise statistics and minority-owned and women-owned businesses. (The 1987 Census of Agriculture and 1987 Census of Governments are conducted separately.) The next economic censuses are scheduled to be taken in 1993 covering the year 1992.

## AVAILABILITY OF THE DATA

The results of each of the economic censuses are available in printed reports, for sale by the U.S. Government Printing Office, and on microfiche, computer tape, compact discs with read-only memory, and flexible diskettes, for sale by the Census Bureau. Order forms for all types of products are available on request from Customer Services, Census Bureau, Washington, DC 20233. A more complete description of publications being issued from this census is on the inside back cover of this document.

Census facts are also widely disseminated by trade associations, business journals, and newspapers. Volumes containing census statistics are available in most major public and college libraries. Finally, State Data Centers in every State and Business and Industry Data Centers in many States also supply economic census statistics.

## WHAT'S NEW IN 1987

Several changes have taken place for the 1987 censuses. Data will be reported on the basis of the newly revised Standard Industrial Classification (SIC) system with selected reports including "bridge tables," linking the old and new classification systems. A new set of metropolitan



areas has been adopted, and more detailed information will be available for businesses with no paid employees. For additional information on these changes, review the subsequent text.

One important change involves receipts of contractors and builders. Prior to 1987, the Census of Construction Industries collected receipts as the primary measure of construction activity. For 1987, the census collected the "value of construction work done" to better measure actual construction activity done during the year. Differences between the two concepts occur when work is done in one year and payment received either from the prior or in the succeeding year. In addition, receipts do not include work a contractor performs for its own account and use.

## **HISTORICAL INFORMATION**

The economic censuses have been taken together as an integrated program at 5-year intervals since 1967, and before that for 1963, 1958, and 1954. Prior to that time, the individual censuses were taken separately at varying intervals.

The economic censuses trace their beginnings to the 1810 Decennial Census, when questions on manufacturing were included with those for population. Coverage of economic activities was expanded for 1840 and subsequent censuses to include mining and some commercial activities. In 1902, Congress established a permanent Census Bureau and directed that a census of manufactures be taken every 5 years. The 1905 manufactures census was the first time a census was taken apart from the regular every-10-year population census.

The first census of business was taken in 1930, covering 1929. Initially it covered retail and wholesale trade, and construction industries, but it was broadened in 1933 to include some of the service trades.

The 1954 economic censuses were the first to be fully integrated—providing comparable census data across economic sectors, using consistent time periods, concepts, definitions, classifications, and reporting units. These were the first censuses to be taken by mail, using lists of firms provided by the administrative records of other federal agencies. Since 1963, administrative records have also been used to provide basic statistics as well for very small firms, reducing or eliminating the need to send them census questionnaires. The Enterprise Statistics Program, which publishes combined data from the economic censuses, was made possible with the implementation of the integrated census program in 1954.

The range of industries covered in the economic censuses has continued to expand. The Census of Construction Industries began on a regular basis in 1967, and the scope of service industries was broadened in 1967, 1977, and 1987. The Census of Transportation began in 1963 as a set of surveys covering travel, transportation of commodities, and trucks. New for 1987 are publications reporting on business establishments engaged in several transportation industries, paralleling the data on establishments in

other sectors. This is part of a gradual expansion in coverage of industries previously subjected to government regulation. The Survey of Minority-Owned Business Enterprises was first conducted as a special project in 1969 and was incorporated into the economic censuses in 1972 along with the Survey of Women-Owned Businesses.

Economic censuses have also been taken in Puerto Rico since 1909, in the Virgin Islands and Guam since 1958, and in the Northern Mariana Islands since 1982.

Statistical reports from the 1982 and earlier censuses provide historical figures for the study of long-term time series, and are available in some large libraries. All of the census data published since 1967 are still available for sale on microfiche from the Census Bureau.

## **AVAILABILITY OF MORE FREQUENT ECONOMIC DATA**

While the censuses provide complete enumerations every 5 years, there are many needs for more frequent data as well. The Census Bureau conducts a number of monthly, quarterly, and annual surveys, the results of which appear in publication series such as *Current Construction Reports* (building permits, housing starts, and value of new construction put in place), *Current Business Reports* (retail and wholesale trade and service industries), the *Annual Survey of Manufactures*, *Current Industrial Reports*, and the *Quarterly Financial Report*. Most of these surveys, while providing more frequent observations, yield less kind-of-business and geographic detail than the censuses. The *County Business Patterns* program offers annual statistics on the number of establishments, employment, and payroll classified by industry within each county.

## **SOURCES FOR MORE INFORMATION**

More information about the scope, coverage, classification system, data items, and publications for each of the economic censuses and related surveys is published in the *Guide to the 1987 Economic Censuses and Related Statistics*. More information on the methodology, procedures, and history of the censuses will be published in the *History of the 1987 Economic Censuses*. Contact Customer Services for information on availability.

## **CENSUS OF CONSTRUCTION INDUSTRIES—SCOPE AND CLASSIFICATION**

The 1987 Census of Construction Industries covers all employer establishments (establishments with payroll) primarily engaged in contract construction, construction on their own account for sale, or in subdividing real property



into lots as defined in the 1987 Standard Industrial Classification (SIC) Manual.<sup>1</sup> This industrial classification system has been developed by experts on classification in government and private industry under the guidance of the Office of Management and Budget and is in general use among government agencies and among organizations outside the government.

**Contract construction**—The SIC manual defines construction in three broad types of activity that follow:

1. **Building construction by general contractors or by operative builders**—General building contractors are primarily engaged in the construction of dwellings, office buildings, stores, farm buildings, and other building projects. Operative builders who build on their own account for sale are also included here. However, investment builders who build structures on their own account for rent are classified in Real Estate.
2. **Heavy construction general contractors**—Heavy construction general contractors are primarily engaged in the construction of highways, bridges, pipelines, sewers and water lines, marine construction, power, and petro-chemical plants and other nonbuilding construction projects. Special trade contractors are classified in heavy construction if they are specifically engaged in the following activities: grading for highway and airport runways; guardrail construction; installation of highway signs; asphalt and concrete construction of roads, highways, streets and public sidewalks; trenching, cable laying; conduit construction; underwater rock removal; pipeline wrapping; or land clearing and leveling.
3. **Construction by other special trade contractors**—These contractors include plumbers, painters, carpenters, electricians, brick layers, roofers, etc. For the most part, they perform their work at the site of construction, although they may also have shops where they perform work incidental to the job site.

General contractors in both the building and the heavy construction field usually assume responsibility for an entire construction project, but may subcontract to others all of the actual construction work or those portions of the project requiring special skills or equipment. Special trade contractors may work for general contractors, for other subcontractors, or may work directly for the owner of the property.

In addition to the industries classified in the SIC manual as Construction, this census also includes one industry

classified in the Real Estate area, SIC 6552, Land Subdividers and Developers, Except Cemeteries. These establishments are engaged in subdividing real property into lots and in developing it for sale on their own account.

Each establishment receiving a questionnaire was requested to report the percent of total dollar value of business done for each kind-of-business activity engaged in during 1987. This information was used for the computer assignment of appropriate industry classifications. During this work, various tests were also made using other data reported on the questionnaire. The proportion of construction work to total business was checked to verify that the establishment was primarily in construction. Also taken into consideration were the types of structures worked on during the year and the extent of work undertaken for other contractors.

Construction establishments often engage in various construction activities. It is necessary, however, to assign a single industry code to the establishment based on its major activity. Therefore, the statistics shown for an industry reflect not only the primary activity of the establishments in the industry, but also their secondary activities. The industry reports, however, do present data on the extent of secondary activities.

A revised edition of the SIC Manual was issued in 1987. Minor modifications were made to three industries in the construction sector: SIC 1611, Highway and Street Construction Contractors, Except Elevated Highways; SIC 1629, Heavy Construction Contractors, N.E.C; and SIC 1771, Concrete Work Special Trade Contractors. The extent of these modifications are explained in the specific texts for those industries. "Bridge tables" are also included showing selected data tabulated using both the previous classification system and the 1987 revision.

## ESTABLISHMENT BASIS OF REPORTING

The census of construction industries is conducted on an establishment basis. A "construction establishment" is defined as a relatively permanent office or other place of business where the usual business activities related to construction are conducted. With some exceptions, a relatively permanent office is one which has been established for the management of more than one project or job and which is expected to be maintained on a continuing basis. Such "establishment" activities include, but are not limited to estimating, bidding, purchasing, supervising, and operation of the actual construction work being conducted at one or more construction sites. Separate construction reports were not required for each project or construction site.

Companies with more than one construction establishment were required to submit a separate report for each such establishment operated during all or any part of 1987. The census of construction industries figures represent a summary of records for individual establishments rather than for companies. The census tabulations, therefore, differ from those prepared on a company basis.

<sup>1</sup>Standard Industrial Classification Manual: 1987. For sale by Superintendent of Documents, U.S. Government Printing Office, Washington, DC 20402. Stock No. 041-001-00314-2.



If an establishment engaged in construction and one or more distinctly different lines of economic activity (wholesale or retail trade, service, manufacturing, mining, etc.) at the same place of business, it was requested to file a separate report appropriate to each activity, provided that the activity was of substantial size and separate records were maintained or substantially accurate estimates could be prepared.

If a separate establishment report could not be prepared for each activity, then a construction report was requested covering all activities of that establishment providing that the 1987 value of construction work exceeded the gross receipts from each of its other activities.

Construction businesses with no payroll during 1987 (nonemployers) were not required to file census reports. Tabulation of data for these businesses are based on administrative records and are shown only in U.S. summary publications and the geographic area reports series. Refer to the section on "Sample Design" for details. Foreign construction activities were not included in this census.

## **SAMPLE DESIGN, ESTIMATION PROCEDURES, AND RELIABILITY OF ESTIMATES**

The companies included in the 1987 Census of Construction Industries were identified as part of an operation common to all 1987 Economic Censuses. Construction companies were divided into employers (companies with payroll) and nonemployers (companies without payroll). Statistical information for the employers was obtained in the census by a survey which included all medium size and large employers and a sample of the smaller ones. Census reports were not required from the nonemployers. Statistics on them were obtained from administrative records of other agencies of the Federal Government.

### **Employer Companies**

**Developing the sampling frame for employer companies**—This operation started with obtaining a list of all construction companies in the active records of the Internal Revenue Service (IRS) which were subject to payment of Federal Insurance Contributions Act taxes. The basic source for this list has been the Internal Revenue Service Business Master File, a comprehensive list of companies engaged in business activities in the United States. The file contains the name, address, and form of ownership of each company and also indicates whether or not the company is subject to the FICA. Each company in this file is assigned a unique employer identification (EI) number which it uses in filing its various reports with the IRS. The Social Security Administration (SSA) maintains a similar list using the same identification numbers, which also contains information on the industrial classification of each company. The Bureau of the Census obtained both of these lists and combined them.

Under special arrangements which safeguarded the confidentiality of the information, the Bureau also obtained administrative records data on payrolls and receipts and added these data to the combined list. The list, thus created from the IRS-SSA information, was a list of employer companies. However, for the 1987 Economic Censuses the basic reporting unit is the "establishment." Therefore, steps were taken to identify the individual establishments of those companies which operate more than one place of business. The information for making this determination was obtained by means of the Company Organization Survey (COS), an annual canvass of all known multiestablishment companies and large single-establishment companies. Thus, the 1987 Economic Census list for single-establishment employer companies was obtained from the IRS-SSA, but the list of establishments of multiestablishment employer companies was obtained directly from those companies in the COS. Refer to the section on "Establishment Basis for Reporting" for details.

In general, the IRS-SSA list provided sufficient industrial classification data to assign a company to the proper economic census, but there were a number of companies for which this information was inadequate or unavailable. A special form, NC-9923, General Schedule, was mailed to all such companies, requesting information on the nature of the company's activities. From the information reported, the company was given an industrial classification code and assigned to the appropriate economic census. Since construction companies found in this way were identified only after the regular census mailing had taken place, they were treated as a supplement to the basic list.

**Selecting the employer sample**—The sample was designed to provide reliable State and metropolitan area estimates for each construction industry. It consisted of all construction establishments in multiestablishment companies, all single-establishment companies with estimated total employment of 20 employees or more, and a probability sample of single-establishment companies with estimated employment of fewer than 20 employees.

Supplementing the sample were construction companies identified from the NC-9923, General Schedule. Also affecting the sample were the misclassified companies; i.e., companies included in the samples of other trade areas which reported they were construction companies and companies originally classified in construction which reported they were not construction companies.

Of the 533,000 single-establishment employer companies initially classified as construction companies, 147,000 were included in the sample. All of the 13,000 establishments of multiestablishment companies were included in the sample. There was a net increase in the sample of 60,000 establishments resulting from establishments originally unclassified (receiving the NC-9923) or misclassified.

The probability sample of the smaller single-establishment companies was a stratified random sample. Strata were formed from all establishments with the same initial four-digit SIC code, in the same State, in the same metropolitan



area or in the balance of the State, and in the same size class based on estimated total employment. If the four-digit SIC code for an establishment was incomplete, the establishment was placed in a stratum for miscellaneous companies. Because they were small, all companies were included in the sample for the following three industries: SIC 1622, Bridge, Tunnel, and Elevated Highway Construction Contractors; SIC 1795, Wrecking and Demolition Work Special Trade Contractors; and SIC 1796, Installation or Erection of Building Equipment Special Trade Contractors.

#### Estimation procedures for 1987 and 1982 data—

Since all larger employer companies and some smaller ones were included in the census, sample estimation was required only for the universe of companies not selected with certainty. The published statistics are the totals of the estimates for the sampled companies and the aggregates for the certainty companies. All estimates for 1987 and 1982 published here are simple unbiased estimates of the form:

$$x'_c = \sum_{i=1}^{n_c} x_i / p_i$$

where:  $x'_c$  is the simple unbiased estimate of a characteristic for a publication cell.

$x_i$  is the reported value of a characteristic for an individual establishment in the publication cell.

$p_i$  is the selection probability of that firm.

$n_c$  is the number of firms in the sample for the cell.

Data for certain characteristics were reported as a percentage of the dollar value of business done. Before this formula was applied to those characteristics, it was necessary to convert the reported percentages into dollars.

**Reliability of employer statistics**—Since the estimates for employer establishments in these reports are based on the samples, they are subject to sampling variability and may be expected to differ from results which would have been obtained if a complete census had been taken using the same forms and procedures. The sampling errors shown in the tables were estimated directly from the sample reports, using methods appropriate for the sample design and form of estimation used.

The relative standard error is a measure of sampling variability, i.e., the variation that might occur by chance because only a sample of the population is surveyed. As calculated for this report, the relative standard error also partially reflects the effect of random errors of response and processing, but it does not take into account the effect of any consistent biases due to those types of errors. The chances are about 68 out of 100 that an estimate from the

sample would differ from a complete census by less than the relative standard error. The chances are about 95 out of 100 that the difference is less than twice the relative standard error and about 99 out of 100 that it is less than 2-1/2 times the relative standard error. Individual estimates with large relative standard errors have been shown in the published tables. Any such estimates should be used with caution. The very large relative standard errors generally occur for the smaller estimates.

Relative standard errors have been calculated for all of the published statistics, although they are shown for each statistic only in the tables presenting detailed statistics. Other tables show relative standard errors only for certain characteristics because of lack of space.

As calculated for this report, the relative standard error measures certain nonsampling errors, but does not measure any systematic biases in the data. Bias is the difference, averaged over all possible samples with the same size and design, between the estimates and the true value being estimated. Nonsampling errors can be attributed to many sources: inability to obtain information about all cases in the sample; definitional difficulties; differences in interpretation of questions; inability or unwillingness of respondents to provide correct information; and errors made in processing the data. Although no direct measurements of the biases have been obtained, it is believed that most of the important response and operational errors were detected in the course of reviewing the data for reasonableness and consistency.

A potential source of bias is in the imputation for those establishments that have not responded by the time of final publication. Data were estimated for establishments that did not report by that date, although selected establishments were contacted again to obtain as much information on the telephone as possible. Some publication cells in which more than 40 percent of the data were not reported have been suppressed.

### Nonemployer Companies

As described earlier, the information derived from the business income tax returns of all companies was matched to the census employer file on the basis of common identification numbers. Those business income tax returns which could not be matched, were further classified on the basis of several characteristics. Returns with characteristics consistent with companies without payroll were treated as nonemployers. The nonemployer construction companies were not required to file census reports.

For "number of establishments," each separate income tax return was assumed to be an establishment. "All business receipts" was based on receipts information reported on the tax return.

Since no sampling was involved in the nonemployer establishments, the statistics for nonemployers are not subject to sampling variability. However, these data are subject to an unknown amount of reporting and processing errors which could not be detected by the Census Bureau.



## CENSUS REPORT FORMS

Information for the 1987 Census of Construction Industries was obtained from employer establishments primarily through the use of twenty-four questionnaires, determined by industry classification and size. Standard forms and short forms were developed for each of the following SIC groups: 15, 16, 171, 172, 173, 174, 175, 176, 177, 178, and 179 and for the establishments classified in SIC 6552. Establishments with 50 or more employees all received the standard form. A sub-sample of establishments with fewer than 50 employees received short forms instead of the standard forms. The short forms covered only major items and omitted some of the detail found in the longer forms.

In reviewing and developing the questionnaires, comments and recommendations were elicited from construction trade associations and appropriate advisory groups. The Bureau surveyed several thousand firms representing all economic activities to gain insight into the way companies maintain records and to see whether new information could be collected.

## DATA PROCESSING

The 1987 census report forms were mailed out in December 1987. They were mailed from and returned to the Census Bureau's Data Preparation Division in Jeffersonville, Ind., where routine editing and coding of the report forms were also accomplished. Collection of these report forms was essentially completed in July 1988.

The returned reports underwent extensive processing. A preliminary edit done at the time of data entry identified obviously deficient reports and reports needing clarification. When necessary, these problems were resolved by further contact with the respondents. Next, the data were transmitted to Census Bureau headquarters near Washington, DC.

Data records, then, underwent a detailed computer review and analysis. The records containing significant problems were referred for further analytical review and, if necessary, contacts were made with the respondents. The computer performed most classification coding (such as industry coding, geographic coding, and size coding), and imputation for missing items or for reports not received in time for tabulation. The imputation was performed on an industry (or industry group)-State (or geographic group) basis using all available response and administrative data.

The data records were then tabulated on an industry basis. Industry totals were subjected to analytical review, and selected statistics were prepared for the preliminary reports. Corrections resulting from this review were made to the computer records and final tabulations were produced.

The review of a preliminary report for an industry often uncovered the need for corrections or revisions to the data for another industry for which a preliminary report had already been published. The final reports incorporate all

revisions and corrections made during the review of the preliminary reports and contain considerable more data than were published in those reports.

## GEOGRAPHIC CLASSIFICATION

Information for the 1987 Census of Construction Industries' final industry report series is classified on the basis of two types of geographic distributions: (1) physical location of the establishment, and (2) location of construction work. A separate code was assigned on each basis allowing us to present data by both physical locations of the establishment and location of construction work.

The geographic area reports series presents similar data by industry for each State (physical location of the establishment) and for selected MSA's, CMSA's and PMSA's.

## DUPLICATION IN VALUE OF CONSTRUCTION WORK

The aggregate of value of construction work reported by all construction establishments in each of the several industry, geographic area, or other groupings in this census, contains varying amounts of duplication, since the construction work of one firm may be subcontracted to other construction firms and also be included in the subcontractors' value of construction work. To avoid this duplication, a "net" value of construction work figure has been derived for each establishment by subtracting the costs for construction work subcontracted to others from the value of construction work.

Duplication in value of business between other construction and nonconstruction industries, results from the use of products of these other industries as input materials by construction establishments. "Value added," avoids this duplication and is, for most purposes, the best measure for comparing the relative economic importance of industries or areas. "Value added," is defined in the 1987 Census of Construction Industries as equal to dollar value of business done less costs for construction work subcontracted to others and payments for materials, components, supplies, and fuels. However, for SIC 6552 and SIC 1531 where land receipts are significant, land receipts are also subtracted from dollar value of business done.

## SPECIAL TABULATIONS

Special tabulations of data collected in the 1987 Census of Construction Industries may be obtained on computer tape or in tabular form. The data will be in summary form and subject to the same rules prohibiting disclosure of confidential information (including name, address, kind of business, or other data for individual business establishments or companies) as are the regular publications.

Special tabulations are prepared on a cost basis. A request for a cost estimate, as well as exact and detailed specifications of the type and format of the data to be provided, should be directed to the Chief, Construction Statistics Division, Bureau of the Census, Washington, DC, 20233.



To discuss a special tabulation before submitting specifications, call 301-763-7546.

## COMPARABILITY OF CENSUS OF CONSTRUCTION INDUSTRIES DATA WITH OTHER DATA

Data contained in the reports of the 1987 Census of Construction Industries are not the same as the data published in the Census Bureau's monthly Construction Reports, Series C30, Value of New Construction Put in Place. The main difference is that the C30 series covers all new construction put in place without regard to who is performing the construction activity, whereas the construction census figures cover both new construction and maintenance and repair work done by establishments classified in the construction industry. Significant amounts of construction are done by establishments classified outside of construction (in real estate, manufacturing, utilities and communications, for example), both as "force account" construction and construction done for others. In addition, the value in place series includes construction-related expenses such as architectural and engineering costs and the costs of materials supplied by owners which are normally not reflected in the Census of Construction.

Data contained in the reports of the census of construction industries may also differ from industry data in "Employment and Earnings Statistics," published by the Bureau of Labor Statistics, and "Statistics of Income," published by the Internal Revenue Service. These differences arise from varying definitions of scope, coverage, timing, classification, and methodology.

## ABBREVIATIONS AND SYMBOLS

The following abbreviations and symbols are used in this publication:

*	Sampling error exceeds 40 percent.
**	Represents the sum of all employees during pay periods including 12th of March, May, August, and November, divided by 4.
-	Represents zero.
†	Represents value of construction work less costs for construction work subcontracted to others. (See Duplication in Value of Construction Work.)
††	Represents dollar value of business done less costs for construction work subcontracted to others, and costs for materials, components, supplies, and fuels. In SIC's 1531 and 6552, land receipts are also subtracted from dollar value of business done. (See Duplication in Value of Construction Work.)
(D)	Withheld to avoid disclosing data for individual companies; data are included in higher level totals.
(NA)	Not available.
(S)	Withheld because estimate did not meet publication standards on the basis of either the response rate, associated relative standard error, or a consistency review.
(W)	Greater than zero but less than 1 percent.
(X)	Not applicable.
n.s.k.	Not specified by kind.

# Users' Guide for Locating Statistics in This Report by Table Number

Statistics	For U.S.	By State	By employment size	By size class of dollar value of business done	By type, class, ownership, kind of business, and location of construction <sup>1</sup>	By specialization in types of construction
Assets and depreciation (gross book value):						
Beginning of year—buildings, machinery and equipment.....	3					
End of year—total.....	1, 3	1	5	6		
End of year—buildings, machinery and equipment.....	3					
Depreciation charges during year—buildings, machinery and equipment.....	3					
Capital expenditures:						
Total capital expenditures.....	1, 3	1	5	6		
New buildings—machinery and equipment.....	3					
Used buildings—machinery and equipment.....	3					
Communication services, costs for.....	2					
Employees:						
All employees—average number.....	1, 2	1	5	6		8
Construction workers—average number.....	1, 2, 9	1, 9				
Other employees—average number.....	2					
Employer costs for fringe benefits—legally required and voluntary expenditures.....	2					
Establishments—number in business during year.....	1, 2, 4, 9	1, 9	5	6		8
Hours—construction workers:						
Total.....	1, 2, 9	1, 9	5	6		
Quarterly.....	2, 9	9				
Inventories.....	4					
Materials, components, supplies, and fuels—costs for.....	1, 2	1	5	6		
Payroll:						
First quarter, all employees.....	2					
Annual:						
All employees.....	1, 2	1	5	6		8
Construction workers.....	1, 2	1				
Other employees.....	2					
Power, fuels, and lubricants—costs for.....	2					
Proprietors and working partners.....	2					
Ratios, State.....	13	13				
Value and receipts:						
Dollar value of business done, total.....	2		5	6	11	
Value of construction work, total.....	1, 2, 4	1	5	6	2, 7, 10	8
For work subcontracted in from others.....	2					
Other business receipts and land receipts <sup>2</sup> .....	2					
Net value of construction work.....	1, 2	1	5	6		8
Value added.....	1, 2	1	5	6		8
Rental costs:						
Total.....	1, 2	1	5	6		
For machinery and equipment.....	2					
For buildings.....	2					
Repairs to buildings and other structures.....	2					
Repairs to machinery and equipment.....	2					
Selected industry ratios.....	12					
Subcontract work to others, costs for.....	1, 2	1	5	6		8

Note: Data for 1982 and earlier years are also available in some of these tables.

<sup>1</sup>Type—buildings, roads, etc. Class—new construction; additions, alterations, or reconstruction; or maintenance and repair work. Ownership—private or government owned.

<sup>2</sup>Land receipts are shown separately for SIC's 1531 and 6552 only.



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Statistics for Establishments Without Payroll appear in the U.S. Industry Summary Report.

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# SUMMARY OF FINDINGS

Establishments classified in this industry are primarily engaged in the construction of single-family houses, row-houses, and townhouses (including new work, additions, alterations, remodeling, and repair). For additional examples, refer to the 1987 Standard Industrial Classification (SIC) Manual published by the Office of Management and Budget, Executive Office of the President.

During 1987, the establishments with paid employees classified in this industry accounted for \$40.1 billion in total dollar value of business. Of this amount, \$39.1 billion were for the value of construction work. These establishments paid out \$12.9 billion for materials, components, and supplies and \$11.8 billion for construction work subcontracted to others. Costs for selected power, fuels, and lubricants for this industry were \$493 million. Value added for 1987 was \$15.0 billion.

There were 90,378 establishments with total employment averaging 396,291 during the year. Total payroll for 1987 was \$6.3 billion. Total hours worked by construction workers during the year were 470 million hours.

Larger establishments with 20 employees or more, while representing only 2 percent of the total number of employer establishments in this industry accounted for 22 percent of all business done.

A "construction establishment" is defined as a relatively permanent office, or other place of business, where the usual business activities related to construction are conducted. A separate census report was required from each sampled establishment covering domestic operations. Separate reports were not, however, required for each project or construction site.

In 1987, the value of construction work was collected to better measure actual construction activity done during the year. Construction receipts, as reported in earlier censuses, may have included the value of work done before or after the calendar year and may have excluded the value of work in progress during the calendar year. Receipts may have also excluded work done by builders engaged in construction for sale on their own account or for their own use. All dollar values are shown in current dollars for the years specified and have not been adjusted for inflation.

The data in this report are estimated from a sample survey and are subject to sampling variability as well as errors of response and nonreporting. The relative standard error shown in the tables is a measure of sampling variability. Descriptions of the sampling, estimating procedures, and data reliability are included in the Introduction.



Figure 1. **Value of Construction Work by Type of Construction**  
(Percent)

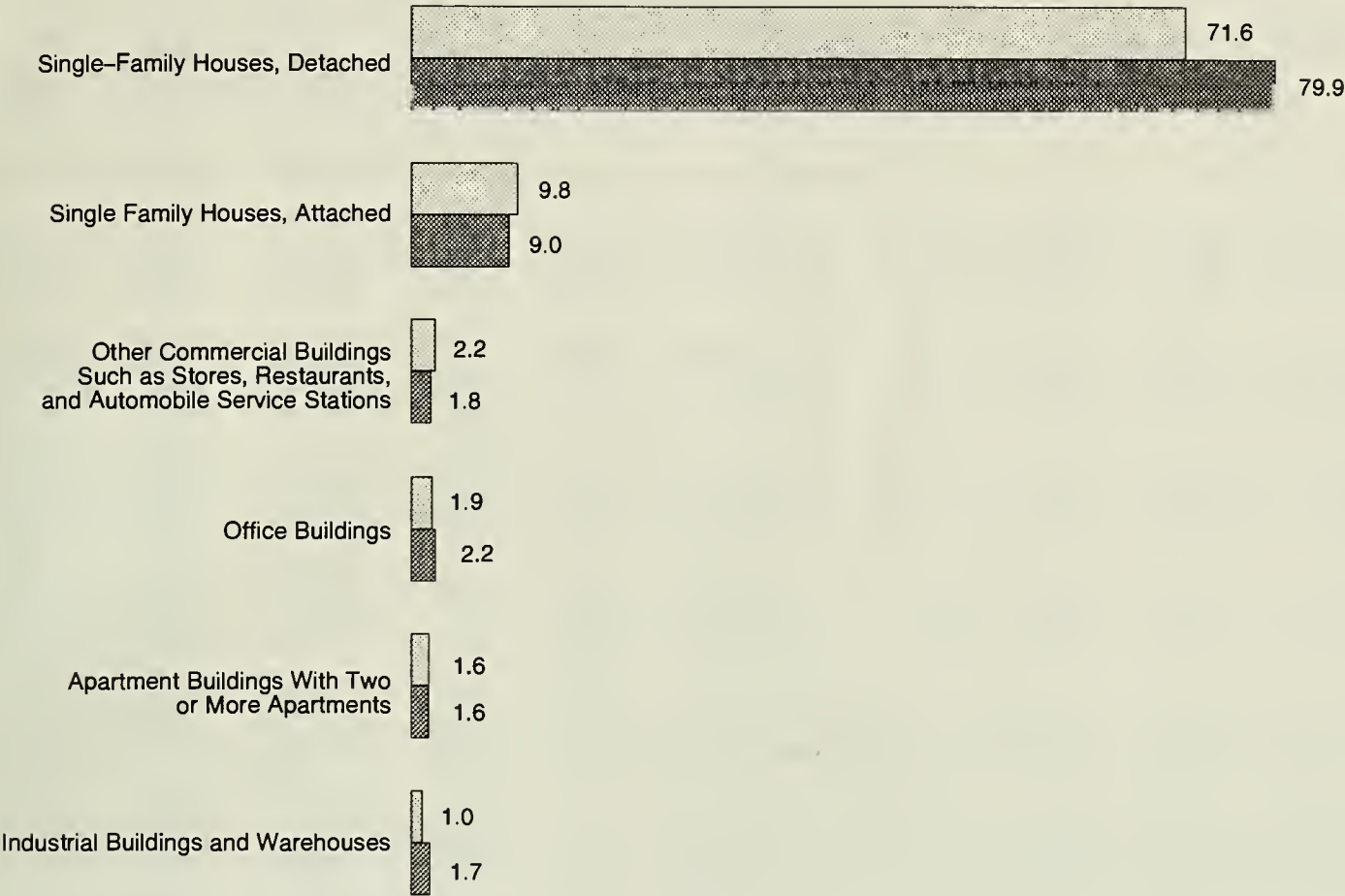
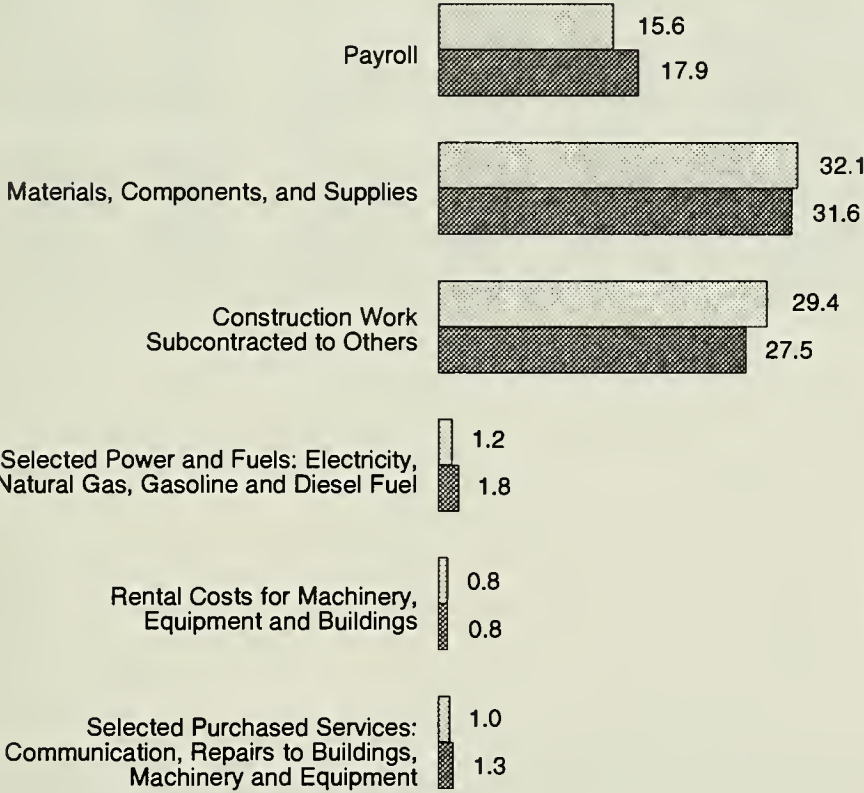


Figure 2. **Selected Costs Per Dollar Value of Business Done**  
(Percent)



**Table 1. General Statistics for Establishments With Payroll by State: 1987 and 1982**

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Location of establishment	1987							
	Number of establishments	Employees**		Payroll		Construction worker hours (thousands)	Value of construction work	Net value of construction work†
		All	Construction workers	All employees	Construction workers			
A	B	C	D	E	F	G	H	
United States .....	90 378	396 291	307 305	6 272 178	4 342 944	470 499	39 098 146	27 319 239
Alabama .....	1 271	5 816	4 579	71 482	49 980	6 613	497 097	352 132
Alaska .....	195	(S)	(S)	(S)	(S)	(S)	(S)	(S)
Arizona .....	1 136	5 418	4 043	86 245	56 893	6 521	597 031	368 915
Arkansas .....	550	1 816	1 400	24 508	16 165	2 124	164 821	117 192
California .....	10 627	50 427	39 562	886 556	620 708	53 876	5 467 742	3 539 248
Colorado .....	1 088	4 711	3 603	77 306	53 957	5 643	492 042	321 550
Connecticut .....	1 859	9 836	7 831	183 708	126 031	12 549	997 480	731 743
Delaware .....	425	2 326	1 861	35 266	25 760	3 034	208 310	144 903
District of Columbia .....	57	231	167	4 517	2 691	318	22 611	13 662
Florida .....	4 728	25 482	18 178	395 211	242 117	26 918	3 174 347	2 080 641
Georgia .....	2 058	8 816	6 854	118 356	80 929	9 956	(D)	632 254
Hawaii .....	398	1 910	1 477	38 456	27 446	2 157	273 734	174 414
Idaho .....	297	1 025	801	12 882	9 567	1 118	91 375	58 999
Illinois .....	3 143	13 514	10 610	234 578	165 368	17 054	1 392 960	947 743
Indiana .....	1 924	8 234	6 410	127 317	89 509	10 399	713 896	537 921
Iowa .....	736	2 219	1 816	27 076	21 465	3 079	183 432	134 461
Kansas .....	782	3 038	2 336	44 548	30 745	3 697	279 739	206 251
Kentucky .....	807	2 797	2 326	37 003	27 637	3 259	241 910	180 708
Louisiana .....	812	2 768	1 870	36 270	22 386	2 569	216 736	160 305
Maine .....	1 062	5 468	4 474	78 864	60 524	7 578	421 697	312 580
Maryland .....	2 484	12 947	10 147	211 820	145 456	16 237	1 249 590	875 864
Massachusetts .....	3 243	15 444	12 259	284 227	194 084	19 911	1 508 197	1 088 391
Michigan .....	2 868	12 298	9 626	195 562	138 199	14 988	1 211 838	858 113
Minnesota .....	1 681	6 640	5 173	117 093	80 508	7 625	692 733	492 853
Mississippi .....	623	2 359	1 926	26 046	19 586	2 709	170 528	128 364
Missouri .....	1 827	8 054	6 378	125 870	91 783	9 887	675 705	509 915
Montana .....	355	815	678	10 734	8 610	739	63 289	47 518
Nebraska .....	621	2 037	1 550	27 841	18 358	2 419	168 995	118 184
Nevada .....	404	1 866	1 404	35 565	24 374	2 293	242 541	149 765
New Hampshire .....	1 138	5 936	4 853	100 242	73 497	7 759	478 134	356 064
New Jersey .....	3 656	16 262	12 715	301 510	205 019	19 999	1 709 637	1 225 226
New Mexico .....	790	3 035	2 410	38 394	28 077	3 630	213 351	155 698
New York .....	6 779	28 883	22 943	460 952	332 700	37 904	2 494 522	1 919 295
North Carolina .....	3 074	14 315	10 980	202 833	135 018	17 178	1 348 543	920 773
North Dakota .....	214	678	553	7 400	5 894	868	45 585	36 726
Ohio .....	3 206	12 831	9 973	201 425	142 652	15 928	1 309 904	954 666
Oklahoma .....	529	1 700	1 056	25 157	13 490	1 317	173 060	112 381
Oregon .....	1 234	3 673	2 636	47 715	31 787	3 324	329 129	225 695
Pennsylvania .....	4 697	21 006	16 263	335 214	229 483	27 570	2 294 671	1 596 712
Rhode Island .....	546	2 249	1 906	35 251	27 611	2 679	183 421	139 240
South Carolina .....	1 562	6 838	5 242	88 976	60 519	7 976	642 020	455 251
South Dakota .....	221	700	634	6 845	6 134	892	33 376	28 389
Tennessee .....	1 331	5 967	4 784	74 902	53 920	7 324	513 227	389 298
Texas .....	3 614	13 373	9 139	197 930	120 565	13 507	1 408 821	988 478
Utah .....	512	1 495	1 190	20 060	15 610	1 762	166 365	110 130
Vermont .....	743	3 804	3 092	62 394	47 409	5 386	319 208	224 617
Virginia .....	2 999	14 995	11 632	212 393	142 095	17 394	1 265 562	920 637
Washington .....	2 595	8 318	6 571	122 939	91 721	8 163	753 601	517 739
West Virginia .....	667	2 440	1 974	28 870	22 547	2 893	139 313	114 981
Wisconsin .....	2 006	7 893	6 139	123 584	89 097	9 962	(D)	539 300
Wyoming .....	182	(S)	(S)	(S)	(S)	(S)	(S)	(S)

†In earlier censuses, construction receipts only were collected. In 1987, the value of construction work was collected to better measure actual construction activity done during the year.



1987—Con.						1982			Relative standard error of estimate (percent) for column—			Location of establishment
Value added††	Cost of materials, components, supplies, and fuels	Cost of construction work sub-contracted to others	Rental cost for machinery, equipment, and buildings	Capital expenditures, other than land	End-of-year gross book value of depreciable assets	All employees**	Total construction receipts¹	Value added††				
I	J	K	L	M	N	O	P	Q	B	H	M	
14 969 716	13 356 645	11 778 907	324 844	515 125	3 342 100	309 614	19 646 355	7 876 520	1	1	2	U.S.
177 006 (S)	187 629 (S)	144 964 (S)	3 255 (S)	5 636 (S)	50 661 (S)	5 094 (S)	301 196 (S)	104 771 (S)	6 (S)	7 (S)	18 (S)	AL
218 421	167 385	228 116	4 224	8 359	52 538	5 384	396 630	148 795	5	8	15	AK
56 521	67 273	47 629	1 141	2 046	11 617	2 331	143 305	60 813	8	9	27	AZ
2 241 792	1 450 821	1 928 494	53 522	57 989	424 633	34 439	2 389 711	997 916	2	3	5	AR
												CA
173 665	157 463	170 492	4 462	5 540	54 933	7 722	516 800	208 235	6	7	18	CO
428 651	329 087	265 737	8 670	17 838	93 817	4 345	261 419	106 320	4	4	11	CT
79 387	67 856	63 406	1 699	3 325	15 591	1 105	65 951	30 583	9	9	24	DE
7 955	(D)	8 948	94	271	2 983	616	41 209	13 197	19	12	26	DC
1 006 086	(D)	1 093 706	21 480	34 809	198 697	21 766	1 739 372	690 951	2	3	9	FL
		(D)										
308 826	338 535		5 067	6 413	72 346	6 690	425 274	156 981	5	6	10	GA
114 574	63 758	99 319	2 619	2 866	21 556	1 661	131 839	63 087	6	8	21	HI
32 040	28 218	32 376	591	632	8 283	1 569	109 458	45 729	11	12	37	ID
549 697	445 902	445 216	7 353	17 262	99 589	9 931	638 528	265 023	3	4	8	IL
301 004	270 998	175 975	4 726	11 510	62 562	6 233	325 939	134 411	4	5	15	IN
70 525	67 327	48 970	745	2 197	23 635	2 972	142 904	58 204	9	12	19	IA
109 974	98 781	73 488	2 737	4 123	30 012	3 102	171 798	71 586	7	9	23	KS
87 614	99 802	61 201	1 754	2 259	28 994	3 502	157 383	61 190	6	10	28	KY
90 930	75 546	56 431	1 714	1 269	26 812	(S)	(S)	(S)	9	8	25	LA
171 027	146 065	109 117	4 152	8 991	31 981	1 962	91 770	39 983	5	5	13	ME
481 626	417 373	373 725	9 403	20 071	89 815	8 236	461 639	200 881	3	5	9	MD
636 125	507 014	419 806	12 540	26 988	112 360	6 543	429 286	171 522	3	4	9	MA
441 816	444 870	353 724	10 124	16 962	94 944	7 289	464 834	185 654	3	4	14	MI
271 143	243 012	199 879	5 754	10 780	56 122	5 570	377 640	144 031	4	5	15	MN
71 139	63 567	42 164	1 566	2 433	20 868	2 755	155 753	59 913	9	10	28	MS
302 189	223 225	165 789	5 025	9 941	73 657	4 843	277 164	116 922	4	4	13	MO
26 983	21 653	15 770	474	1 221	12 111	1 369	77 374	34 070	11	13	30	MT
59 157	59 729	50 810	1 324	2 830	18 530	2 195	130 450	54 656	8	9	20	NE
91 992	61 658	92 776	1 847	1 304	11 312	1 795	120 926	49 948	8	12	24	NV
196 197	166 209	122 069	5 521	9 241	48 655	1 951	124 668	46 422	4	5	10	NH
703 419	636 108	484 411	18 331	21 508	136 686	8 617	536 679	217 048	3	3	8	NJ
81 416	78 204	57 653	1 804	1 541	25 428	3 159	155 897	64 290	7	8	16	NM
1 052 516	903 127	575 226	27 791	40 302	228 508	15 659	908 313	382 293	2	3	6	NY
452 570	499 754	427 770	9 410	15 345	109 568	9 448	532 014	188 051	4	4	12	NC
18 017	19 339	8 858	323	*419	*10 532	(S)	(S)	(S)	17	19	52	ND
513 005	466 288	355 237	10 379	17 004	105 503	10 127	678 143	268 831	3	5	8	OH
55 181	63 322	60 679	2 392	1 204	25 050	4 550	281 087	109 520	9	13	25	OK
128 055	109 412	103 434	3 696	4 303	29 853	3 306	182 868	77 375	8	8	21	OR
793 325	853 835	697 959	14 951	39 184	194 690	14 751	856 196	339 327	3	3	8	PA
69 702	71 068	44 180	1 425	3 033	15 062	1 537	73 538	32 014	7	8	20	RI
222 500	251 189	186 769	4 869	5 954	72 020	5 574	342 766	119 470	5	6	19	SC
15 667	14 084	4 986	191	*774	6 690	906	48 303	18 807	16	15	45	SD
196 234	203 400	123 928	3 375	8 793	46 818	4 762	316 481	140 608	6	8	24	TN
503 828	523 654	420 343	16 860	12 945	169 050	24 586	1 750 058	659 519	3	4	10	TX
57 224	55 300	56 235	772	1 572	22 449	2 354	166 029	69 498	8	10	25	UT
120 967	109 751	94 591	2 313	5 915	25 618	1 785	98 430	37 118	5	6	15	VT
499 634	452 604	344 924	9 100	14 957	108 244	9 527	485 030	190 559	3	4	10	VA
285 585	244 759	235 862	5 623	7 542	56 968	7 198	507 511	215 374	4	4	12	WA
65 780	51 112	24 331	829	1 819	14 144	2 381	93 198	41 914	8	8	26	WV
276 405	282 164	(D)	5 121	14 399	71 713	5 471	324 319	117 457	4	5	13	WI
(S)	(S)	(S)	(S)	(S)	(S)	1 258	83 199	32 076	(S)	(S)	(S)	WY

**Table 2. Detailed Statistics for Establishments With Payroll: 1987 and Earlier Census Years**

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Item	1987	1982	1977	1972	Relative standard error of estimate (percent)			
					1987	1982	1977	1972
Number of establishments in business during year .....	90 378	72 115	100 993	(S)	1	1	1	(S)
Proprietors and working partners .....	24 230	27 053	65 614	(S)	2	1	1	(S)
All employees** .....	396 291	309 614	437 681	(S)	1	1	1	(S)
Construction workers:								
March .....	283 720	230 442	332 747	(S)	1	1	1	(S)
May .....	312 298	253 129	407 019	(S)	1	1	1	(S)
August .....	332 509	262 053	416 252	(S)	1	1	1	(S)
November .....	300 695	241 436	373 479	(S)	1	1	1	(S)
Average .....	307 305	253 457	382 806	(S)	1	1	1	(S)
Other employees:								
March .....	86 843	55 640	51 876	(S)	1	1	1	(S)
May .....	89 075	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
August .....	91 730	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
November .....	88 294	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
Average .....	88 985	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
Construction worker hours (thousands):								
January to March .....	103 906	82 991	(NA)	(NA)	1	1	(NA)	(NA)
April to June .....	120 287	92 481	(NA)	(NA)	1	1	(NA)	(NA)
July to September .....	129 217	96 670	(NA)	(NA)	1	1	(NA)	(NA)
October to December .....	117 088	89 525	(NA)	(NA)	1	1	(NA)	(NA)
Total hours worked .....	470 499	361 668	(NA)	(NA)	1	1	(NA)	(NA)
Payroll, all employees .....	6 272 178	3 606 261	3 736 421	(S)	1	1	1	(S)
Payroll, construction workers .....	4 342 944	2 748 962	3 066 031	(S)	1	1	1	(S)
Payroll, other employees .....	1 929 234	857 299	670 390	(S)	1	1	1	(S)
First quarter payroll, all employees .....	1 362 439	834 503	773 525	(NA)	1	1	1	(NA)
Employer costs for fringe benefits, all employees .....	1 181 709	667 857	617 994	(NA)	1	1	2	(NA)
Legally required expenditures .....	939 942	520 227	459 086	(NA)	1	1	1	(NA)
Voluntary expenditures .....	241 767	147 629	158 908	(NA)	1	1	3	(NA)
Dollar value of business done .....	40 105 269	20 129 090	21 890 323	(S)	1	1	1	(S)
Value of construction work <sup>1</sup> .....	39 098 146	19 646 355	21 292 675	(S)	1	1	1	(S)
Value of construction work subcontracted in from others .....	3 035 374	1 016 099	1 161 918	(S)	4	2	14	(S)
Land receipts <sup>2</sup> .....	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)	(NA)
Other business receipts .....	1 007 122	482 734	597 649	(S)	2	2	2	(S)
Net value of construction work† .....	27 319 239	14 115 590	15 070 355	(S)	1	1	1	(S)
Value added†† .....	14 969 716	7 876 520	7 297 013	(S)	1	1	1	(S)
Selected costs .....	25 135 553	12 252 569	14 593 311	(S)	1	1	1	(S)
Materials, components, and supplies <sup>3</sup> .....	12 863 522	6 357 278	8 013 183	(S)	1	1	1	(S)
Construction work subcontracted to others .....	11 778 907	5 530 765	6 222 320	(S)	1	1	2	(S)
Selected power, fuels, and lubricants .....	493 123	364 526	357 808	(NA)	1	1	1	(NA)
Electricity .....	89 445	66 360	48 666	(NA)	2	1	1	(NA)
Natural gas .....	16 792	13 669	24 379	(NA)	3	2	4	(NA)
Gasoline and diesel fuel .....	356 584	256 574	213 891	(NA)	1	1	1	(NA)
On highway use .....	323 666	(NA)	(NA)	(NA)	1	(NA)	(NA)	(NA)
Off highway use .....	32 917	(NA)	(NA)	(NA)	4	(NA)	(NA)	(NA)
Other, including lubricating oils and greases .....	30 300	27 921	70 873	(NA)	2	2	1	(NA)
Rental cost for machinery, equipment, and buildings .....	324 844	167 870	104 457	(NA)	2	2	2	(NA)
For machinery and equipment .....	170 465	98 857	68 632	(S)	4	2	2	(S)
For buildings .....	154 379	69 013	35 825	(NA)	2	2	2	(NA)
Selected purchased services .....	403 094	266 781	442 884	(NA)	2	1	3	(NA)
Communication services .....	180 919	113 080	145 680	(NA)	2	1	8	(NA)
Repairs to buildings and other structures .....	30 314	17 990	27 298	(NA)	4	2	5	(NA)
Repairs to machinery and equipment .....	191 860	135 710	269 906	(NA)	2	1	2	(NA)
Ownership of construction projects:								
Value of construction work <sup>1</sup> .....	39 098 146	19 646 355	21 292 675	(S)	1	1	1	(S)
Government owned .....	1 065 338	891 347	551 128	(S)	5	10	3	(S)
Federal .....	401 859	(NA)	(NA)	(NA)	8	(NA)	(NA)	(NA)
State and local .....	663 479	(NA)	(NA)	(NA)	5	(NA)	(NA)	(NA)
Privately owned .....	38 032 807	18 755 007	20 741 546	(S)	1	1	1	(S)

<sup>1</sup>In earlier censuses, construction receipts only were collected. In 1987, the value of construction work was collected to better measure actual construction activity done during the year.

<sup>2</sup>Data were collected separately for establishments classified in SIC 1531, Operative Builders, and SIC 6552, Subdividers and Developers, Except Cemeteries. For all other industries, data are included in other business receipts.

<sup>3</sup>For 1972, includes data for power, fuels, and lubricants.



**Table 3. Assets, Capital Expenditures, and Depreciation for Establishments With Payroll: 1987 and 1982**

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Item	1987	1982	Relative standard error of estimate (percent)	
			1987	1982
<b>BUILDINGS AND OTHER STRUCTURES, MACHINERY, AND EQUIPMENT</b>				
Beginning-of-year gross book value of depreciable assets .....	2 955 441	2 305 406	2	1
Capital expenditures, other than land .....	515 125	276 325	2	2
New .....	397 530	179 465	2	2
Used .....	117 595	96 859	3	2
Retirements and disposition of depreciable assets .....	128 466	133 706	6	3
End-of-year gross book value of depreciable assets .....	3 342 100	2 448 024	2	1
Depreciation charges during year .....	426 187	354 917	2	1
<b>Buildings and other Structures, Additions, and Related Facilities</b>				
Beginning-of-year gross book value of depreciable assets .....	1 045 839	807 813	4	2
Capital expenditures, other than land .....	98 974	49 981	5	4
New buildings and other structures .....	68 204	38 988	7	5
Used buildings and other structures .....	30 770	10 993	7	9
Retirements and disposition of depreciable assets .....	46 001	39 038	16	6
End-of-year gross book value of depreciable assets .....	1 098 812	818 757	4	2
Depreciation charges during year .....	86 124	73 391	4	2
<b>Machinery and Equipment</b>				
Beginning-of-year gross book value of depreciable assets .....	1 909 601	1 497 592	1	1
Capital expenditures, other than land .....	416 150	226 343	2	1
New machinery and equipment, including automobiles and trucks .....	329 326	140 477	2	2
New automobiles and trucks, intended primarily for highway use .....	218 613	84 682	3	2
Used machinery and equipment, including automobiles and trucks .....	86 824	85 866	4	2
Retirements and disposition of depreciable assets .....	82 464	94 667	4	3
End-of-year gross book value of depreciable assets .....	2 243 287	1 629 267	1	1
Depreciation charges during year .....	340 063	281 526	2	1

**Table 4. Value of Inventories for Establishments With Payroll: 1987 and 1986**

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Item	Establishments with payroll	Relative standard error of estimate (percent)
All establishments:		
Number .....	90 378	1
Value of construction work .....	39 098 146	1
Establishments with inventories:		
Number .....	28 780	1
Value of construction work .....	18 584 190	2
Inventories <sup>1</sup> :		
End of 1987, materials and supplies .....	365 359	6
End of 1986, materials and supplies .....	348 682	5
Establishments with no inventories:		
Number .....	48 409	1
Value of construction work .....	14 893 565	2
Establishments not reporting:		
Number .....	13 189	2
Value of construction work .....	5 620 391	2

<sup>1</sup>Inventories at cost or market prior to any adjustment to correct to LIFO values.

**Table 5. Selected Statistics for Establishments With Payroll by Employment Size Class: 1987 and 1982**

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Selected statistics	Total	Establishments with an average of—									1,000 employees or more
		1 to 4 employees	5 to 9 employees	10 to 19 employees	20 to 49 employees	50 to 99 employees	100 to 249 employees	250 to 499 employees	500 to 999 employees		
<b>1987</b>											
Number of establishments .....	90 378	(S)	17 278	6 093	1 882	257	50	15	4	—	
All employees** .....	396 291	(S)	107 140	78 513	51 992	16 817	7 255	4 890	2 723	—	
Payroll, all employees .....	6 272 178	(S)	1 636 935	1 353 705	945 357	340 246	143 349	151 182	(D)	—	
Construction worker hours (thousands) .....	470 499	(S)	128 024	97 454	64 364	20 576	8 325	5 594	1 837	—	
Dollar value of business done .....	40 105 269	(S)	9 751 021	7 869 437	5 183 306	1 672 618	908 487	1 060 251	(D)	—	
Value of construction work <sup>1</sup> .....	39 098 146	(S)	9 555 468	7 697 348	5 051 520	1 619 631	819 772	920 260	(D)	—	
Net value of construction work <sup>†</sup> .....	27 319 239	(S)	6 795 496	5 327 200	3 470 061	1 098 190	469 598	643 559	(D)	—	
Value added <sup>††</sup> .....	14 969 716	(S)	3 649 918	3 021 143	2 060 855	671 811	349 719	454 552	(D)	—	
Cost of materials, components, supplies, and fuels .....	13 356 645	(S)	3 341 130	2 478 146	1 540 991	479 367	208 594	328 998	(D)	—	
Cost of construction work subcontracted to others .....	11 778 907	(S)	2 759 972	2 370 148	1 581 458	521 440	350 174	276 701	(D)	—	
Rental cost for machinery, equipment, and buildings .....	324 844	(S)	73 665	69 937	50 632	17 620	10 004	10 080	(D)	—	
Capital expenditures, other than land .....	515 125	(S)	122 595	85 644	72 299	14 563	12 681	15 986	(D)	—	
End-of-year gross book value of depreciable assets .....	3 342 100	(S)	798 815	617 865	380 834	108 235	82 941	69 039	(D)	—	
<b>1982</b>											
All employees** .....	309 614	105 577	71 791	58 751	41 865	(S)	(S)	3 530	3 853	(D)	
Total construction receipts <sup>1</sup> .....	19 646 355	6 394 132	4 289 707	3 590 653	2 716 103	(S)	(S)	288 527	496 877	(D)	
Value added <sup>††</sup> .....	7 876 520	2 449 654	1 707 748	1 455 882	1 053 814	(S)	(S)	140 806	295 637	(D)	
<b>1987 RELATIVE STANDARD ERROR OF ESTIMATE (PERCENT)</b>											
All employees** .....	1	(S)	2	2	2	1	(W)	(W)	(W)	—	
Net value of construction work <sup>†</sup> .....	1	(S)	2	2	1	(W)	(W)	(W)	(D)	—	
Capital expenditures, other than land .....	2	(S)	5	5	4	3	(W)	(W)	(D)	—	

Note: Underscored data fields include data from adjoining columns which have been withheld to avoid disclosing data for individual companies.

<sup>1</sup>In earlier censuses, construction receipts only were collected. In 1987, the value of construction work was collected to better measure actual construction activity done during the year.



**Table 6. Selected Statistics by Size Class of the Dollar Value of Business Done for Establishments With Payroll: 1987 and 1982**

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Selected statistics	Total	Establishments with dollar value of business done									
		Less than \$25,000	\$25,000 to \$49,999	\$50,000 to \$99,999	\$100,000 to \$249,999	\$250,000 to \$499,999	\$500,000 to \$999,999	\$1,000,000 to \$2,499,999	\$2,500,000 to \$4,999,999	\$5,000,000 to \$9,999,999	\$10,000,000 or more
<b>1987</b>											
Number of establishments -----	90 378	(S)	(S)	(S)	(S)	16 477	10 557	6 314	1 535	371	198
All employees** -----	396 291	(S)	(S)	(S)	(S)	75 488	73 072	69 062	30 746	13 216	17 097
Payroll, all employees -----	6 272 178	(S)	(S)	(S)	(S)	1 069 566	1 218 532	1 303 474	658 100	318 854	422 035
Construction worker hours (thousands) -----	470 499	(S)	(S)	(S)	(S)	94 591	88 931	82 400	37 017	16 167	17 565
Dollar value of business done -----	40 105 269	(S)	(S)	(S)	(S)	5 720 778	7 279 396	9 232 797	5 156 684	2 523 183	4 357 074
Value of construction work <sup>1</sup> -----	39 098 146	(S)	(S)	(S)	(S)	5 620 350	7 153 133	9 012 756	5 047 547	2 470 204	4 038 220
Net value of construction work† -----	27 319 239	(S)	(S)	(S)	(S)	4 251 424	5 090 736	6 173 617	3 213 397	1 545 223	2 307 877
Value added†† -----	14 969 716	(S)	(S)	(S)	(S)	2 263 082	2 661 040	3 303 794	1 714 174	881 044	1 518 887
Cost of materials, components, supplies, and fuels -----	13 356 645	(S)	(S)	(S)	(S)	2 088 770	2 555 959	3 089 863	1 608 359	717 157	1 107 844
Cost of construction work subcontracted to others -----	11 778 907	(S)	(S)	(S)	(S)	1 368 925	2 062 396	2 839 139	1 834 150	924 981	1 730 342
Rental cost for machinery, equipment, and buildings -----	324 844	(S)	(S)	(S)	(S)	50 150	58 111	71 639	42 821	18 640	26 843
Capital expenditures, other than land -----	515 125	(S)	(S)	(S)	(S)	91 350	91 260	102 991	54 660	22 487	35 790
End-of-year gross book value of depreciable assets -----	3 342 100	(S)	(S)	(S)	(S)	596 166	597 432	676 024	299 631	180 299	194 802
<b>1982</b>											
All employees** -----	309 614	11 659	14 859	30 108	68 595	57 689	48 612	38 458	(S)	(S)	13 990
Total construction receipts <sup>1</sup> -----	19 646 355	124 921	336 539	1 039 133	3 128 996	3 391 527	3 495 261	3 352 541	(S)	(S)	2 016 945
Value added†† -----	7 876 520	52 969	146 574	454 633	1 295 272	1 321 071	1 340 427	1 289 244	(S)	(S)	933 228
<b>1987 RELATIVE STANDARD ERROR OF ESTIMATE (PERCENT)</b>											
All employees** -----	1	(S)	(S)	(S)	(S)	2	2	2	2	1	1
Net value of construction work† -----	1	(S)	(S)	(S)	(S)	2	2	2	3	3	4
Capital expenditures, other than land -----	2	(S)	(S)	(S)	(S)	5	5	5	7	6	3

Note: Underscored data fields include data from adjoining columns which have been withheld to avoid disclosing data for individual companies.

<sup>1</sup>In earlier censuses construction receipts only were collected. In 1987, the value of construction work was collected to better measure actual construction activity done during the year.

**Table 7. Value of Construction Work for Establishments With Payroll by Type of Construction: 1987 and 1982**

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Type of construction	Value of construction work <sup>1</sup>				Relative standard error of estimate (percent) for column—			
	Total	New construction	Additions, alterations, or reconstruction <sup>2</sup>	Maintenance and repair				
	A	B	C	D	A	B	C	D
<b>1987</b>								
Value of construction work <sup>1</sup> .....	39 098 146	23 737 617	9 674 990	2 101 739	1	1	1	1
<b>Building construction</b> .....	35 267 533	23 569 316	9 623 099	2 075 116	1	1	1	2
Single-family houses .....	31 833 307	21 681 563	8 402 804	1 748 940	1	1	1	2
Single-family houses, detached .....	27 994 892	18 640 661	7 794 766	1 559 465	1	1	1	2
Single-family houses, attached .....	3 838 414	3 040 902	608 038	189 474	3	3	5	6
Apartment buildings with two or more apartments .....	638 197	414 214	152 435	71 547	5	7	6	5
Other residential buildings, including hotels and motels .....	345 309	184 015	122 359	38 933	14	26	6	7
Office buildings .....	740 709	404 125	289 705	46 878	7	12	4	5
Other commercial buildings such as stores, restaurants, and automobile service stations .....	875 552	447 716	357 953	69 883	3	4	4	5
Industrial buildings and warehouses .....	379 143	223 029	119 218	36 896	3	4	5	6
Industrial buildings .....	256 167	144 148	85 008	27 011	4	5	5	7
Warehouses .....	122 975	78 881	34 209	9 884	5	6	8	10
Other nonresidential buildings .....	455 316	214 654	178 624	62 039	8	10	13	20
<b>Nonbuilding construction</b> .....	248 813	168 299	51 891	26 622	6	7	14	12
<b>Construction work, n.s.k.</b> .....	3 583 600	(NA)	(NA)	(NA)	2	(NA)	(NA)	(NA)
<b>1982</b>								
Value of construction work <sup>1</sup> .....	19 646 355	10 482 203	6 379 436	2 764 715	1	1	1	1
<b>Building construction</b> .....	19 427 094	10 360 124	6 333 011	2 733 959	1	1	1	1
Single-family houses .....	17 466 476	9 422 177	5 664 516	2 379 783	1	1	1	1
Single-family houses, detached .....	15 693 418	8 183 545	5 300 274	2 209 599	1	1	1	1
Single-family houses, attached .....	1 773 058	1 238 632	364 241	170 184	2	2	3	3
Apartment buildings with two or more apartments .....	314 738	156 217	77 943	80 577	3	3	4	4
Office buildings .....	441 632	213 873	167 395	60 363	2	3	4	5
Other commercial buildings such as stores, restaurants, and automobile service stations .....	359 242	136 369	157 886	64 986	3	3	3	5
Industrial buildings and warehouses .....	335 705	180 974	95 345	59 385	3	3	5	5
Industrial buildings .....	242 133	123 134	75 192	43 807	4	4	6	7
Warehouses .....	93 572	57 840	20 153	15 578	7	7	7	13
Other buildings .....	509 301	250 514	169 926	88 865	5	5	6	8
<b>Nonbuilding construction</b> .....	190 495	107 569	35 861	47 024	5	6	4	7
<b>Construction work, n.s.k.</b> .....	28 766	14 489	10 544	3 731	11	11	13	21

<sup>1</sup>In earlier censuses, construction receipts only were collected. In 1987, the value of construction work was collected to better measure actual construction activity done during the year.

<sup>2</sup>In 1982, data for additions, alterations, or reconstruction were collected separately for SIC 1521, 1522, 1531, 1541, and 1542. For all other industries, data are included with "New construction."



**Table 8. Selected Statistics for Establishments With Payroll by Specialization in Types of Construction: 1987**

[Thousand dollars. Detail may not add to total due to rounding. This table presents selected statistics for establishments according to degree of specialization in major types of construction work. If number of establishments or value of construction work for a given type of specialization are relatively insignificant, data may not be shown. In addition, data are not shown in this table where distribution of the value of construction work by type of construction was not provided in table 7. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Item	Number of establishments	All employees**	Payroll, all employees	Value of construction work		Net value of construction work†	Value added††	Cost of construction work sub-contracted to others	Relative standard error of estimate (percent) for column—		
				For all types	For specialized type				B	D	H
	A	B	C	D	E	F	G	H			
<b>All establishments .....</b>	90 378	396 291	6 272 178	39 098 146	33 030 618	27 319 239	14 969 716	11 778 907	1	1	1
Establishments not specializing by type .....	5 070	33 351	591 326	3 344 267	(NA)	2 174 159	1 351 018	1 170 107	1	1	1
Establishments specializing 51 percent or more .....	85 308	362 940	5 680 852	35 753 879	33 030 618	25 145 079	13 618 698	10 608 799	2	4	8
<b>SINGLE-FAMILY HOUSES, DETACHED</b>											
<b>All establishments specializing in type .....</b>	69 805	291 820	4 621 630	28 895 022	26 645 839	20 345 443	10 889 043	8 549 579	1	1	1
Establishments with —											
100 percent specialization .....	43 813	164 898	2 610 100	17 753 244	17 753 244	12 458 613	6 447 673	5 294 631	1	1	2
90 to 99 percent specialization .....	8 892	42 466	691 782	4 034 612	3 784 010	2 796 675	1 552 540	1 237 936	2	3	3
80 to 89 percent specialization .....	6 740	29 360	456 152	2 615 965	2 167 564	1 856 812	1 067 704	759 153	3	3	5
70 to 79 percent specialization .....	4 954	25 498	412 937	2 092 099	1 531 359	1 523 299	862 613	568 799	3	3	4
60 to 69 percent specialization .....	3 109	17 720	281 531	1 471 732	913 233	1 045 494	586 293	426 238	4	4	4
51 to 59 percent specialization .....	2 295	11 876	169 126	927 367	496 427	664 548	372 218	262 819	4	5	6
<b>SINGLE-FAMILY HOUSES, ATTACHED</b>											
<b>All establishments specializing in type .....</b>	3 505	23 477	452 606	3 255 855	2 785 943	2 035 802	1 212 927	1 220 053	3	4	5
Establishments with —											
100 percent specialization .....	1 839	8 717	154 041	1 273 831	1 273 831	800 217	436 824	473 614	5	6	8
90 to 99 percent specialization .....	362	3 960	77 153	540 416	502 330	348 142	194 374	192 274	6	10	12
80 to 89 percent specialization .....	489	3 094	60 442	384 829	315 619	259 818	151 881	125 010	7	9	12
70 to 79 percent specialization .....	411	2 998	64 562	474 144	348 799	267 676	199 599	206 468	7	6	8
60 to 69 percent specialization .....	265	3 306	68 087	366 098	230 598	237 727	166 084	128 370	6	13	14
51 to 59 percent specialization .....	137	1 399	28 319	216 534	114 763	122 219	64 163	94 314	13	23	32

# Table 9. Quarterly Construction Worker Hours and Employment for Establishments With

[Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Location of establishment	Number of establishments	Average number of construction workers	Construction worker hours (thousands)	January to March		April to June	
				Construction workers <sup>1</sup>	Hours worked (thousands)	Construction workers <sup>1</sup>	Hours worked (thousands)
	A	B	C	D	E	F	G
<b>United States</b> .....	<b>90 378</b>	<b>307 305</b>	<b>470 499</b>	<b>283 720</b>	<b>103 906</b>	<b>312 298</b>	<b>120 287</b>
Alabama .....	1 271	4 579	6 613	4 393	1 549	5 012	1 724
Alaska .....	195	(S)	(S)	(S)	(S)	(S)	(S)
Arizona .....	1 136	4 043	6 521	3 780	1 439	4 040	1 644
Arkansas .....	550	1 400	2 124	1 298	468	1 440	555
California .....	10 627	39 562	53 876	37 392	12 342	40 420	13 739
Colorado .....	1 088	3 603	5 643	3 216	1 244	3 489	1 372
Connecticut .....	1 859	7 831	12 549	7 141	2 736	7 894	3 197
Delaware .....	425	1 861	3 034	1 698	693	1 843	768
District of Columbia .....	57	167	318	152	70	161	74
Florida .....	4 728	18 178	26 918	17 736	6 435	18 085	6 767
Georgia .....	2 058	6 854	9 956	6 739	2 369	7 043	2 642
Hawaii .....	398	1 477	2 157	1 431	526	1 430	539
Idaho .....	297	801	1 118	673	224	920	314
Illinois .....	3 143	10 610	17 054	9 397	3 559	10 685	4 251
Indiana .....	1 924	6 410	10 399	5 649	2 202	6 567	2 697
Iowa .....	736	1 816	3 079	1 691	663	1 856	791
Kansas .....	782	2 336	3 697	2 290	878	2 313	888
Kentucky .....	807	2 326	3 259	2 121	673	2 370	846
Louisiana .....	812	1 870	2 569	1 797	660	2 037	666
Maine .....	1 062	4 474	7 578	3 824	1 532	4 388	1 892
Maryland .....	2 484	10 147	16 237	9 347	3 568	10 259	4 102
Massachusetts .....	3 243	12 259	19 911	10 766	4 267	12 209	5 142
Michigan .....	2 868	9 626	14 988	8 504	2 992	9 982	3 867
Minnesota .....	1 681	5 173	7 625	4 507	1 547	5 343	1 981
Mississippi .....	623	1 926	2 709	1 887	627	1 995	732
Missouri .....	1 827	6 378	9 887	5 981	2 218	6 501	2 492
Montana .....	355	678	739	588	170	702	186
Nebraska .....	621	1 550	2 419	1 345	547	1 588	627
Nevada .....	404	1 404	2 293	1 405	601	1 555	614
New Hampshire .....	1 138	4 853	7 759	4 449	1 705	4 858	1 927
New Jersey .....	3 656	12 715	19 999	11 470	4 419	12 803	5 040
New Mexico .....	790	2 410	3 630	2 366	841	2 513	962
New York .....	6 779	22 943	37 904	20 537	8 115	23 558	9 789
North Carolina .....	3 074	10 980	17 178	11 016	4 003	11 294	4 478
North Dakota .....	214	553	868	512	225	629	212
Ohio .....	3 206	9 973	15 928	8 838	3 272	10 160	4 153
Oklahoma .....	529	1 056	1 317	998	312	1 029	336
Oregon .....	1 234	2 636	3 324	2 453	744	2 601	811
Pennsylvania .....	4 697	16 263	27 570	13 915	5 554	16 249	7 080
Rhode Island .....	546	1 906	2 679	1 717	579	1 877	663
South Carolina .....	1 562	5 242	7 976	5 306	2 010	5 394	2 055
South Dakota .....	221	634	892	586	196	663	236
Tennessee .....	1 331	4 784	7 324	4 526	1 662	4 728	1 841
Texas .....	3 614	9 139	13 507	9 185	3 234	9 472	3 577
Utah .....	512	1 190	1 762	1 002	364	1 182	461
Vermont .....	743	3 092	5 386	2 634	1 152	3 014	1 300
Virginia .....	2 999	11 632	17 394	11 131	3 916	12 026	4 444
Washington .....	2 595	6 571	8 163	6 124	1 796	6 794	2 126
West Virginia .....	667	1 974	2 893	1 788	608	1 912	704
Wisconsin .....	2 006	6 139	9 962	5 244	1 984	6 237	2 553
Wyoming .....	182	(S)	(S)	(S)	(S)	(S)	(S)

<sup>1</sup>Construction workers during pay periods including 12th of March, May, August, and November.



# Payroll by State: 1987

July to September		October to December		Relative standard error of estimate (percent) for column—										Location of establishment
Construction workers¹	Hours worked (thousands)	Construction workers¹	Hours worked (thousands)											
H	I	J	K	B	C	D	E	F	G	H	I	J	K	
332 509	129 217	300 695	117 088	1	1	1	1	1	1	1	1	1	1	U.S.
4 812	1 700	4 099	1 638	6	8	6	9	9	10	6	8	6	8	AL
(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	AK
4 199	1 722	4 153	1 714	6	8	6	8	6	8	7	8	6	9	AZ
1 531	567	1 332	533	8	13	9	15	9	13	8	13	8	13	AR
41 736	14 574	38 699	13 220	2	2	2	2	2	2	2	2	2	3	CA
3 851	1 584	3 856	1 441	6	8	8	9	6	8	6	9	7	8	CO
8 545	3 497	7 747	3 117	4	5	4	5	4	6	4	6	4	6	CT
2 095	846	1 807	724	10	13	10	13	10	13	11	14	9	12	DE
183	86	171	86	21	26	23	29	20	26	19	23	22	26	DC
18 826	6 938	18 065	6 776	3	4	3	4	3	4	3	4	3	4	FL
7 099	2 581	6 536	2 362	5	6	5	7	5	7	5	6	6	7	GA
1 606	572	1 441	519	7	9	7	14	7	10	8	9	8	9	HI
872	319	739	259	10	15	11	17	13	16	11	16	10	16	ID
12 113	4 988	10 245	4 253	3	4	3	5	3	4	4	5	3	4	IL
7 073	2 855	6 351	2 644	5	6	5	7	5	6	5	6	5	6	IN
1 958	859	1 757	765	9	12	11	15	10	12	9	12	10	12	IA
2 440	983	2 300	947	7	10	8	11	8	10	7	10	7	10	KS
2 465	899	2 347	839	7	11	7	11	7	11	7	11	7	10	KY
1 874	622	1 772	620	10	12	10	12	11	12	11	13	11	13	LA
5 018	2 147	4 668	2 005	5	7	5	7	5	7	5	7	5	7	ME
11 058	4 477	9 926	4 088	3	4	3	5	3	5	3	4	4	5	MD
14 133	5 544	11 927	4 957	3	4	3	4	3	4	5	4	3	4	MA
10 605	4 361	9 412	3 767	4	5	4	5	4	5	4	5	4	5	MI
5 897	2 213	4 945	1 882	5	6	5	7	5	6	5	6	5	7	MN
1 920	699	1 901	649	9	14	9	14	9	14	10	15	10	15	MS
6 717	2 699	6 312	2 476	4	5	4	6	4	6	4	6	4	5	MO
749	208	673	174	12	17	13	19	13	19	12	18	12	18	MT
1 760	666	1 509	577	8	11	9	12	9	12	8	11	9	11	NE
1 408	567	1 250	509	8	10	9	12	9	11	8	10	8	11	NV
5 536	2 251	4 570	1 874	4	5	4	6	4	5	4	6	4	5	NH
13 836	5 472	12 749	5 068	3	4	3	4	3	4	3	4	3	4	NJ
2 522	961	2 239	865	8	11	9	11	8	12	8	12	8	12	NM
25 018	10 551	22 660	9 449	2	3	2	3	2	3	2	3	2	3	NY
11 352	4 491	10 258	4 205	4	5	4	5	4	5	4	5	3	5	NC
597	246	475	185	17	27	22	33	20	26	17	27	19	30	ND
10 961	4 463	9 932	4 039	3	4	4	5	3	4	4	4	4	5	OH
1 169	340	1 028	327	10	13	10	14	10	13	13	16	13	15	OK
2 907	974	2 586	793	8	10	8	9	8	9	8	10	10	12	OR
18 355	7 831	16 534	7 104	3	4	3	4	3	4	3	4	3	4	PA
2 120	736	1 912	699	7	9	7	10	7	10	7	10	7	10	RI
5 383	2 013	4 886	1 897	5	7	5	7	5	7	5	7	5	8	SC
719	249	568	208	16	21	17	23	18	20	17	22	17	23	SD
5 184	1 994	4 697	1 825	6	7	7	8	6	8	6	7	6	8	TN
9 284	3 534	8 615	3 160	4	5	4	5	4	5	4	5	4	5	TX
1 302	491	1 275	444	9	13	10	15	9	13	9	13	10	14	UT
3 573	1 530	3 149	1 403	6	8	6	8	6	8	6	9	6	8	VT
12 462	4 716	10 907	4 316	4	4	4	5	4	5	4	5	4	5	VA
7 047	2 270	6 322	1 970	4	5	4	6	4	5	4	5	5	6	WA
2 262	856	1 936	724	8	12	8	12	8	12	10	15	9	13	WV
6 930	2 931	6 144	2 492	4	6	5	6	4	6	5	6	5	6	WI
(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)	WY

**Table 10. Value of Construction Work for Establishments With Payroll by Location of Construction Work: 1987 and 1982**

[Thousand dollars. Detail may not add to total due to rounding. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Location of construction work	1987					1982 construction receipts for work done in this State <sup>1</sup>	Percent change 1987 (col A) to 1982 (col F)	Relative standard error of estimate (percent) for column—		
	Value of construction work done in this State <sup>1</sup>	Construction work done by establishments located in this State		Construction work done by establishments not located in this State						
		Number	Value of construction work	Number	Value of construction work					
United States -----	39 098 146	89 456	37 909 851	6 215	1 188 295	19 646 355	99.0	1	1	3
Alabama -----	507 951	1 270	(D)	69	(D)	284 142	78.8	7	(D)	(D)
Alaska -----	119 123	193	(D)	2	(D)	256 574	-53.6	14	(D)	(D)
Arizona -----	610 442	1 133	594 827	13	15 615	408 346	49.5	7	7	1
Arkansas -----	187 437	542	164 042	23	23 394	151 976	23.3	9	10	(W)
California -----	5 437 379	10 574	5 413 813	66	23 565	2 369 961	129.4	3	3	8
Colorado -----	495 721	1 078	480 340	100	15 380	518 574	-4.4	8	8	9
Connecticut -----	1 004 372	1 832	972 188	243	32 184	280 522	258.0	4	4	15
Delaware -----	244 259	424	203 885	179	40 373	72 794	235.5	7	8	3
District of Columbia -----	76 143	56	14 116	208	62 027	58 218	30.8	11	17	13
Florida -----	3 027 253	4 713	3 001 343	73	25 910	1 545 700	95.8	4	4	17
Georgia -----	932 822	2 045	877 540	158	55 282	461 979	101.9	5	6	8
Hawaii -----	277 217	390	(D)	*10	(D)	145 845	90.1	10	(D)	(D)
Idaho -----	84 266	296	(D)	45	(D)	101 980	-17.4	12	(D)	(D)
Illinois -----	1 409 283	3 141	1 380 786	130	28 497	599 120	135.2	5	5	16
Indiana -----	720 619	1 915	703 690	208	16 929	328 350	119.5	6	6	19
Iowa -----	163 358	720	155 744	149	7 613	147 041	11.1	10	11	23
Kansas -----	265 374	763	245 288	125	20 086	175 539	51.2	10	10	15
Kentucky -----	242 972	807	(D)	139	(D)	176 604	37.6	9	(D)	(D)
Louisiana -----	225 215	804	(D)	21	(D)	381 824	-41.0	8	(D)	(D)
Maine -----	408 730	1 057	403 759	69	4 970	99 871	309.3	5	5	23
Maryland -----	1 208 518	2 448	1 140 182	267	68 335	431 216	180.3	5	6	10
Massachusetts -----	1 501 496	3 206	1 470 843	282	30 652	447 243	235.7	4	4	10
Michigan -----	1 221 136	2 856	1 205 685	147	15 451	463 939	163.2	4	4	23
Minnesota -----	677 976	1 656	668 821	121	9 155	355 869	90.5	5	5	13
Mississippi -----	201 771	623	(D)	102	(D)	190 893	5.7	9	(D)	(D)
Missouri -----	663 941	1 810	644 001	101	19 940	272 386	143.8	5	5	31
Montana -----	64 332	355	62 349	6	1 983	84 437	-23.8	13	14	36
Nebraska -----	(D)	604	(D)	*25	38 059	146 794	(D)	(D)	(D)	61
Nevada -----	252 089	396	240 241	61	11 847	122 332	106.1	11	11	34
New Hampshire -----	500 106	1 137	463 159	294	36 946	121 910	310.2	4	5	14
New Jersey -----	1 757 284	3 572	1 667 965	316	89 318	539 471	225.7	3	3	8
New Mexico -----	232 894	784	212 241	21	20 652	172 383	35.1	7	7	11
New York -----	2 491 694	6 685	2 444 461	235	47 233	906 913	174.7	3	3	15
North Carolina -----	1 348 874	3 050	1 321 281	110	27 593	551 388	144.6	4	4	5
North Dakota -----	55 802	214	(D)	76	(D)	54 936	1.6	17	(D)	(D)
Ohio -----	1 316 411	3 153	1 295 445	282	20 965	593 571	121.8	6	6	16
Oklahoma -----	176 752	518	167 201	*15	9 551	292 199	-39.5	13	13	11
Oregon -----	326 764	1 234	324 693	52	2 070	174 592	87.2	9	9	37
Pennsylvania -----	2 206 526	4 603	2 188 160	468	18 365	805 957	173.8	3	3	14
Rhode Island -----	188 205	542	176 852	72	11 353	71 461	163.4	8	8	7
South Carolina -----	665 956	1 537	627 027	184	38 929	370 900	79.6	6	6	16
South Dakota -----	38 864	221	(D)	34	(D)	45 752	-15.1	14	(D)	(D)
Tennessee -----	537 324	1 323	500 595	147	36 728	328 074	63.8	7	8	7
Texas -----	1 351 348	3 557	1 311 521	38	39 826	1 808 891	-25.3	4	4	6
Utah -----	161 810	503	(D)	*13	(D)	145 001	11.6	11	(D)	(D)
Vermont -----	307 209	734	302 773	50	*4 435	94 517	225.0	6	6	71
Virginia -----	1 279 732	2 970	1 226 393	170	53 339	512 956	149.5	4	4	9
Washington -----	749 520	2 577	738 198	48	11 322	439 457	70.6	5	5	23
West Virginia -----	145 993	638	(D)	194	(D)	125 375	16.4	8	(D)	(D)
Wisconsin -----	(D)	1 996	(D)	179	(D)	318 045	(D)	(D)	(D)	(D)
Wyoming -----	46 146	182	(D)	52	(D)	92 511	-50.1	20	(D)	(D)

<sup>1</sup>In earlier censuses, construction receipts only were collected. In 1987, the value of construction work was collected to better measure actual construction activity done during the year.



**Table 11. Dollar Value of Business Done for Establishments With Payroll by Kind of Business Activity: 1987 and 1982**

[Thousand dollars. Detail may not add to total due to rounding. Based on their primary business activity or combination of activities, establishments were classified into this specific industry. These establishments, however, may also be engaged in other kinds of business activities. For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Primary and other kinds of business activities	Dollar value of business done <sup>1</sup>		Relative standard error of estimate (percent)	
	1987	1982	1987	1982
<b>All kinds of business.....</b>	<b>40 105 269</b>	<b>20 129 090</b>	<b>1</b>	<b>1</b>
General building contractor .....	26 247 501	9 778 439	1	1
Operative builder .....	1 419 244	489 273	3	4
Residential remodeling contractor .....	7 640 348	3 020 845	1	1
Subdivider and developer .....	100 827	32 042	10	6
Other construction activities .....	688 971	(S)	5	(S)
Retail trade .....	108 749	70 161	7	6
Sale of land .....	331 408	70 338	4	9
Investment builder .....	99 822	54 213	6	8
Other activities .....	417 681	(S)	2	(S)
Kind of business activity, n.s.k. ....	3 050 718	(S)	2	(S)

<sup>1</sup>In earlier censuses, construction receipts only were collected. In 1987, the value of construction work was collected to better measure actual construction activity done during the year.

**Table 12. Selected Industry Ratios for Establishments With Payroll: 1987 and 1982**

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Selected statistics	1987	1982	Relative standard error of estimate (percent) for 1987
<b>AVERAGE PER ESTABLISHMENT</b>			
Number of employees**	4.4	4.3	1
Number of construction workers	3.4	3.5	1
Number of all other employees	1.0	(NA)	1
Payroll, all employees \$1,000	69.4	50.0	1
Payroll, construction workers do	48.1	38.1	1
Payroll, other employees do	21.3	11.9	1
Dollar value of business done do	443.8	279.1	1
Value of construction work <sup>1</sup> do	432.6	272.4	1
Cost of materials, components, supplies, and fuels do	147.8	93.2	1
Construction work subcontracted to others do	130.3	76.7	1
Rental cost for machinery, equipment, and buildings do	3.6	2.3	2
Capital expenditures, other than land do	5.7	3.8	2
Gross book value of depreciable assets do	37.0	33.9	2
<b>AVERAGE PER EMPLOYEE</b>			
Payroll, all employees do	15.8	11.6	(W)
Dollar value of business done do	101.2	65.0	1
Value added†† do	37.8	25.4	1
<b>AVERAGE PER CONSTRUCTION WORKER</b>			
Payroll, construction workers do	14.1	10.8	(W)
Value of construction work <sup>1</sup> do	127.2	77.5	1
Construction worker hours	1 531.0	1 426.9	1
<b>AVERAGE PER OTHER EMPLOYEE</b>			
Payroll, other employees \$1,000	21.7	(NA)	1
<b>AVERAGE PER DOLLAR VALUE OF CONSTRUCTION WORK<sup>1</sup></b>			
Payroll, all employees	.160	.184	1
Cost of materials, components, supplies, and fuels	.342	.342	1
Cost of construction work subcontracted to others	.301	.282	1
Rental cost for machinery, equipment, and buildings	.008	.009	2

<sup>1</sup>In earlier censuses, construction receipts only were collected. In 1987, the value of construction work was collected to better measure actual construction activity done during the year.



Table 13. Selected Industry Ratios for Establishments With Payroll by State: 1987

[For meaning of abbreviations and symbols, see introductory text. For explanation of terms, see appendixes]

Location of establishment	Average number of employees** per establishment	Payroll per employee (\$1,000)	Construction worker hours per construction worker	Value of construction work per construction worker (\$1,000)	Average per dollar of value of construction work			
					Payroll, all employees	Cost of materials, components, supplies, and fuels	Cost of construction work sub-contracted to others	Rental cost for machinery, equipment, and buildings
United States -----	4.4	15.8	1 531.0	127.2	.160	.342	.301	.008
Alabama -----	4.6	12.3	1 444.2	108.6	.144	.377	.292	.007
Alaska -----	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)
Arizona -----	4.8	15.9	1 612.9	147.7	.144	.280	.382	.007
Arkansas -----	3.3	13.5	1 517.1	117.7	.149	.408	.289	.007
California -----	4.7	17.6	1 361.8	138.2	.162	.265	.353	.010
Colorado -----	4.3	16.4	1 566.2	136.6	.157	.320	.346	.009
Connecticut -----	5.3	18.7	1 602.5	127.4	.184	.330	.266	.009
Delaware -----	5.5	15.2	1 630.3	111.9	.169	.326	.304	.008
District of Columbia -----	4.1	19.6	1 904.2	135.4	.200	(D)	.396	.004
Florida -----	5.4	15.5	1 480.8	174.6	.125	(D)	.345	.007
Georgia -----	4.3	13.4	1 452.6	(D)	(D)	(D)	(D)	(D)
Hawaii -----	4.8	20.1	1 460.4	185.3	.140	.233	.363	.010
Idaho -----	3.5	12.6	1 395.8	114.1	.141	.309	.354	.006
Illinois -----	4.3	17.4	1 607.4	131.3	.168	.320	.320	.005
Indiana -----	4.3	15.5	1 622.3	111.4	.178	.380	.246	.007
Iowa -----	3.0	12.2	1 695.5	101.0	.148	.367	.267	.004
Kansas -----	3.9	14.7	1 582.6	119.8	.159	.353	.263	.010
Kentucky -----	3.5	13.2	1 401.1	104.0	.153	.413	.253	.007
Louisiana -----	3.4	13.1	1 373.8	115.9	.167	.349	.260	.008
Maine -----	5.1	14.4	1 693.8	94.3	.187	.346	.259	.010
Maryland -----	5.2	16.4	1 600.2	123.1	.170	.334	.299	.008
Massachusetts -----	4.8	18.4	1 624.2	123.0	.188	.336	.278	.008
Michigan -----	4.3	15.9	1 557.0	125.9	.161	.367	.292	.008
Minnesota -----	4.0	17.6	1 474.0	133.9	.169	.351	.289	.008
Mississippi -----	3.8	11.0	1 406.5	88.5	.153	.373	.247	.009
Missouri -----	4.4	15.6	1 550.2	105.9	.186	.330	.245	.007
Montana -----	2.3	13.2	1 090.0	93.3	.170	.342	.249	.007
Nebraska -----	3.3	13.7	1 560.6	109.0	.165	.353	.301	.008
Nevada -----	4.6	19.1	1 633.2	172.8	.147	.254	.383	.008
New Hampshire -----	5.2	16.9	1 598.8	98.5	.210	.348	.255	.012
New Jersey -----	4.4	18.5	1 572.9	134.5	.176	.372	.283	.011
New Mexico -----	3.8	12.7	1 506.2	88.5	.180	.367	.270	.008
New York -----	4.3	16.0	1 652.1	108.7	.185	.362	.231	.011
North Carolina -----	4.7	14.2	1 564.5	122.8	.150	.371	.317	.007
North Dakota -----	3.2	10.9	1 569.6	82.4	.162	.424	.194	.007
Ohio -----	4.0	15.7	1 597.1	131.3	.154	.356	.271	.008
Oklahoma -----	3.2	14.8	1 247.2	163.9	.145	.366	.351	.014
Oregon -----	3.0	13.0	1 261.0	124.9	.145	.332	.314	.011
Pennsylvania -----	4.5	16.0	1 695.3	141.1	.146	.372	.304	.007
Rhode Island -----	4.1	15.7	1 405.6	96.2	.192	.387	.241	.008
South Carolina -----	4.4	13.0	1 521.6	122.5	.139	.391	.291	.008
South Dakota -----	3.2	9.8	1 406.9	52.6	.205	.422	.149	.006
Tennessee -----	4.5	12.6	1 530.9	107.3	.146	.396	.241	.007
Texas -----	3.7	14.8	1 478.0	154.2	.140	.372	.298	.012
Utah -----	2.9	13.4	1 480.7	139.8	.121	.332	.338	.005
Vermont -----	5.1	16.4	1 741.9	103.2	.195	.344	.296	.007
Virginia -----	5.0	14.2	1 495.4	108.8	.168	.358	.273	.007
Washington -----	3.2	14.8	1 242.3	114.7	.163	.325	.313	.007
West Virginia -----	3.7	11.8	1 465.6	70.6	.207	.367	.175	.006
Wisconsin -----	3.9	15.7	1 622.7	(D)	(D)	(L)	(D)	(D)
Wyoming -----	(S)	(S)	(S)	(S)	(S)	(S)	(S)	(S)





# APPENDIX A.

## Explanation of Terms

**Construction**—Is composed of three broad categories:

1. **New construction**—Includes the complete, original erection of structures and essential service facilities and the initial installation of integral equipment such as elevators, and plumbing, heating, and air-conditioning supplies and equipment.
2. **Additions, alterations or reconstruction**—Includes construction activity making structural changes to existing facilities. Generally, this type of activity is considered a capital investment in the property.
3. **Maintenance and repair**—Includes construction done for the purpose of upkeep of property rather than additional investment in the property.

Examples of the general distinction between maintenance and repair and reconstruction are provided here: roof repairs, including the replacement of shingles, gutters, etc., are classified under maintenance and repairs. A complete reroofing, however, is classified as reconstruction.

**Number of establishments in business during year**—

Includes all establishments that were in business at any time during the year. It covers all full-year and part-year operations. Construction establishments which were inactive or idle for the entire year were not included.

**Proprietors and working partners**—These data were

not collected on the census report forms. The data shown are based on crediting each sole proprietorship establishment with one active proprietor and each partnership establishment with two working partners.

**All employees**—Comprise all full-time and part-time

employees on the payrolls of construction establishments, who worked or received pay for any part of the pay period including the 12th of March, May, August, and November. Included are all persons on paid sick leave, paid holidays, and paid vacations during these pay periods. Officers of corporations are included, but proprietors and partners of unincorporated firms are not.

All employees is the sum of all employees during the pay periods including the 12th of March, May, August, and November, divided by 4.

**Construction workers**—Includes all workers up through

the working foreman level directly engaged in construction operations, such as painters, carpenters, plumbers, and electricians. Included are journeymen, mechanics, apprentices, laborers, truck drivers and helpers, equipment

operators, and on-site record keepers and security guards. Supervisory employees above the working foreman level are excluded from this category but are included in the "other employees" category.

**Other employees**—Includes employees in executive, purchasing, accounting, personnel, professional, technical activities, and routine office functions. Also included are supervisory employees above the working foreman level.

**Construction worker hours**—Includes the total number of hours worked by construction workers. Construction worker hours were collected for each of the four quarters of 1987.

**Payroll**—Includes the gross earnings paid in the calendar year 1987 to all employees on the payroll of construction establishments. It includes all forms of compensation such as salaries, wages, commissions, dismissal pay, bonuses, vacation and sick leave pay, prior to such deductions as employees' Social Security contributions, withholding taxes, group insurance, union dues, and savings bonds. The total includes salaries of officers of these establishments, if a corporation, but excludes payments to the proprietor or partners, if an unincorporated concern.

**Employer costs for fringe benefits (supplemental labor costs)**—Represents expenditures made by the employer during 1987 for legally required and voluntary fringe benefit programs for employees.

**Legally required contributions**—Include Social Security contributions, unemployment compensation, workman's compensation, and State temporary disability payments.

**Voluntary payments**—Include life insurance premiums, pension plans, insurance premiums on hospital and medical plans, welfare plans, and union negotiated benefits.

Dollar value of business done comprises the following detail:

**Value of construction work done**—Includes all value of construction work done during 1987 for construction work performed by general contractors, special trades contractors, subcontractors, and land development and improvement work. Included is new construction, additions and alterations or reconstruction, and maintenance and repair construction work. Also included is the value of any construction work done by the reporting establishments for themselves.



Builders were instructed to include the value of buildings and other structures built or being built for sale in 1987 but not sold. They were to include the costs of such construction plus normal profit. Also included is the cost of construction work done on buildings for rent or lease.

Establishments engaged in the sale and installation of such construction components as plumbing, heating, and central air conditioning supplies and equipment; lumber and building materials; paint, glass, and wallpaper; and electrical and wiring supplies, elevators or escalators, etc., were instructed to include both the value for the installation and the receipts covering the price of the items installed.

Excluded was the cost of industrial and other specialized machinery and equipment which are not an integral part of a structure.

**Land receipts**—Includes receipts from the sale of land, whether held for sale or sold in connection with the sale of houses and other structures. It excludes the value of any improvements made to the land prior to the sale. (That value was to be included in the value of construction work done.)

**Other business receipts**—Includes business receipts not reported as value of construction work done or land receipts. The item includes business receipts from retail and wholesale trade, rental of equipment, manufacturing, transportation, legal service, insurance, finance, rental of property and other real estate operations, and other nonconstruction activities. Receipts for separately definable architectural and engineering work for others are also included here.

Excluded was the value of construction work done and receipts from other business operations in foreign countries and non-operating income such as interest and dividends.

**Net value of construction work**—Derived for each establishment by subtracting the costs for construction work subcontracted to others from the value of construction work done. (For a further explanation see "Duplication in Value of Construction Work" section in the Introduction.)

**Value added**—Derived for each establishment, value added is equal to dollar value of business done, less costs for construction work subcontracted to others, and costs for materials, components, supplies and fuels. For SIC 6552 and SIC 1531, for which land receipts are significant, land receipts are also subtracted from dollar value of business done. (For a further explanation see "Duplication in Value of Construction Work" section in the Introduction.)

**Selected costs**—Represents the costs for materials, components, and supplies; costs for construction work subcontracted to others; and costs for selected power, fuels, and lubricants. Capital expenditures and rental costs for machinery, equipment, and structures are shown elsewhere.

Costs for materials, components, and supplies include:

- total costs to reporting establishments during 1987 for the purchase of all materials, components, and supplies, except fuels. (Supplies include expendable tools which are charged to current accounts.)
- freight and other direct charges should represent only amount paid after discounts, and the value of materials, components, and supplies obtained from other establishments of the respondent's company.
- costs for materials, components, and supplies used by the reporting establishments in the construction or reconstruction of buildings/structures for themselves which are chargeable to their fixed assets accounts, are included in this item as are costs for materials bought and resold to others.
- costs made for direct purchases of materials, components, and supplies even though the purchases were subsequently provided to subcontractors for their use.

Excluded from this item are:

- industrial and other specialized machinery and equipment, such as printing presses; computer systems; etc., which are not an integral part of a structure
- materials furnished to contractors by the owners of projects.

Costs for construction work subcontracted to others include:

- all costs during 1987 for construction work subcontracted out to other construction contractors.

Excluded from this item are:

- The costs to the reporting establishment for its purchases of materials, components, and supplies, provided to a subcontractor for his use. Such costs are reported under a separate category, "costs for materials, components, and supplies."
- costs for the rental of machinery or equipment.

Costs for selected power, fuels, and lubricants include:

- costs for fuels, lubricants, and electric energy purchased during the year from other companies, or received from other establishments of the company.
- costs for natural and manufactured gas, fuel oil, coal and coke products, etc.

**Rental costs for machinery, equipment, and buildings**—Includes all costs during 1987 for renting or leasing construction machinery and equipment, transportation equipment, production equipment, office equipment, furniture and fixtures, scaffolding, office space, and buildings. It



excludes costs for the rental of land. It also excludes costs under agreements which, in effect, are conditional sales contracts such as capital leases. Such costs are included in "capital expenditures."

**Selected purchased services**—Includes all costs during 1987 for communication services purchased from other companies or from other establishments of the company. It also includes the cost of all repairs made to structures and equipment by outside companies, or from other establishments of the same company. It includes only the cost of that repair necessary to maintain property and equipment. It excludes the cost of improvements that increase the value of property, or the cost of adapting it for another use. Such costs are included in "capital expenditures".

**Assets and depreciation**—Refers to the original cost of all fixed tangible assets such as buildings and other structures (offices, shops, etc.); stationary machinery (generators, shop equipment, etc.); mobile machinery (tractors, trucks, etc.); and other equipment (office furniture and fixtures, etc.). Not included are such items as current assets, depletable assets, intangible assets, and nondepreciable assets.

Data on assets and depreciation were collected separately for: (1) buildings and other structures, additions, and related facilities; and, (2) machinery and equipment.

Respondents were also asked to report capitalized expenditures, depreciation charges, and the gross value of assets sold, retired, scrapped, destroyed, etc., during 1987.

**Capital expenditures**—Refers to all costs actually incurred during 1987 which were or would be chargeable to the fixed assets accounts of the reporting establishments and which were of the type for which depreciation accounts are ordinarily maintained. These expenditures cover the acquisition, the construction, and the major alteration of the reporting establishment's own buildings and other structures, whether purchased, constructed under contract, or constructed by the reporting establishment's own forces; and the acquisition of machinery and equipment.

If leasing arrangements met the criteria set down by the Financial Accounting Standards Board (FASB) for a capital lease, respondents were instructed to report the original cost or market value of that equipment or building as a fixed asset and capital expenditure if acquired during 1987.

If capital expenditures were not recorded directly at the establishment level but handled centrally at the company or division level, respondents were requested to report appropriate estimates for the individual establishments.

**Inventories**—Includes all of the materials and supplies that are owned regardless of where they are held. Excludes materials which are owned by others, but held by the reporting establishment.

Builders who built on their own account for sale were requested to report work in progress and finished units not sold for buildings and other structures built for sale.

Inventories of multi-establishment companies were instructed to be reported by the establishment that is responsible for the inventories even if these inventories were held at a separate location.

**Ownership of construction projects**—This item shows the distribution of the value of construction work done by ownership of the project, that is, Government owned or privately owned. This classification relates to the ownership of the projects or work undertaken during the construction phase. Government owned projects are shown separately for Federal, and State and local governments.

**Value of construction work subcontracted in from others**—Includes the value of construction work during 1987 for work done by reporting establishments for other construction contractors or builders. Establishments were asked to report the approximate percent of total value of construction work accounted for by such work, and the percentages reported were applied to the reported value of construction work to develop a value for this item.

**Types of construction**—This item provides data by the types of buildings, structures, or other facilities being constructed or worked on by construction establishments in 1987. Respondents were instructed that each building, structure, or other facility should be classified in terms of its function. For example, a restaurant building was to be classified in the restaurant category whether it was designed as a commercial restaurant building or an auxiliary unit of an educational institution. If respondents worked on more than one type of building or structure in a multibuilding complex, they were instructed to report separately for each building or type of structure. If they worked on a building that had more than one purpose, i.e, office and residential, or commercial, they were to classify the building by major purpose.

In addition all respondents were requested to report the percentage of the value of construction work done for new construction, additions, alterations, or reconstruction, and maintenance and repair work for each of these types. See the definition of "Construction" for the meanings of these terms.

Building construction:

- **Single-family houses, detached**—Includes all residential buildings constructed for one family use.
- **Single-family houses, attached (include townhouses)**—Includes all residential buildings with two or more living quarters side by side, completely independent of one another, and separated by an unbroken wall from ground to roof.
- **Apartment buildings with two or more apartments**—Includes high-rise, low-rise, or any structures containing two or more housing units (excluding attached single-family houses and townhouses described above).
- **Hotels and motels**—Includes hotels, motels, and tourist cabins intended for transient accommodations.



- **Other residential buildings**—Includes dormitories, fraternity and sorority houses, nurses homes, and other nonhousekeeping residential structures.
- **Office buildings**—Includes all buildings which are used primarily for office space or for government administrative offices. Also included are banks or financial buildings which are three stories or more.
- **Other commercial buildings, such as stores, restaurants, and automobile service stations**—Includes all buildings which are intended for use primarily in the wholesale, retail, and service trades. For example, shopping centers, department stores, drug stores, restaurants, public garages, auto service stations, and one or two story bank or financial institutions.
- **Industrial buildings**—Includes all industrial buildings and plants which are used to house production and assembly activities. Heavy industrial facilities such as blast furnaces, petroleum refineries, chemical complexes, etc., are not included in this category, but under nonbuilding construction.
- **Warehouses**—Includes commercial warehouses, cold storage plants, grain elevators, mini-warehouses, and other such storage buildings.
- **Religious buildings**—Includes all buildings which are intended for religious services or functions, such as churches, synagogues, convents, monasteries, and seminaries.
- **Educational buildings**—Includes all buildings which are used directly in administrative and instructional activities, such as colleges, universities, elementary and secondary schools, correspondence, commercial, and trade schools. Libraries, museums, and art galleries, as well as laboratories which are not a part of a manufacturing establishment, are also included.
- **Hospitals and institutional buildings**—Includes all buildings which are intended to provide hospital and institutional care, such as clinics, infirmaries, sanitariums, nursing homes, homes for the aged, and orphanages.
- **Farm buildings, nonresidential**—Includes nonresidential farm buildings such as barns, poultry houses, implement sheds, and farm silos.
- **Amusement, social, and recreational buildings**—Includes buildings which are used primarily for entertainment, social and recreational activities, such as sports arenas, theaters, music halls, golf and country club buildings, skating rinks, bowling alleys, and indoor swimming pools.
- **Other nonresidential buildings**—Includes nonresidential buildings which are not classified elsewhere, such as fire stations, prisons, civic centers, bus and air passenger terminals and hangars.

#### Nonbuilding construction:

- **Highways, streets and related work, such as installation of guardrails, highway signs, etc.**—Includes streets, roads, alleys, sidewalks, curbs and gutters, culverts, right-of-way drainage, erosion control and lighting. Also includes earthwork protective structures when used in connection with road improvements.
- **Outdoor swimming pools**—Includes wading pools and reflecting pools.
- **Recreational facilities**—Includes athletic fields, golf courses, outdoor tennis courts, trails, and camps.
- **Bridges and elevated highways**—Includes viaducts and overpasses; roads, highways, railroads, and causeways built on structural supports.
- **Tunnels**—Includes highway, pedestrian, and railroad tunnels.
- **Railroad construction**—Includes the construction of railroad beds, tracks, freight yards, and signal towers.
- **Subway construction**—Includes urban mass transit subway systems above or below ground.
- **Dam and reservoir construction**—Includes hydroelectric, water supply, and flood control dams and reservoirs.
- **Marine construction**—Includes dredging, underwater rock removal, breakwaters, navigational channels, jetties, and locks.
- **Harbor and port facilities**—Includes docks, piers, and wharves.
- **Conservation and development construction**—Includes land reclamation, irrigation projects, drainage canals, levees, and flood control projects.
- **Power and communication transmission lines, towers, and related facilities**—Includes electric power lines, telephone and telegraph lines, fiber optic cables, cable television lines, television and radio towers, electric light and power facilities.
- **Power plants, except nuclear**—Includes electric and steam generating plants.
- **Power plants, nuclear**—Includes atomic energy plants, and nuclear reactors.
- **Sewers, sewerlines, and related facilities**—Includes sanitary and storm sewers, and related facilities.
- **Sewage treatment plants**—Includes sewage treatment and waste disposal plants.
- **Water mains and related facilities**—Includes water supply systems and related facilities.



- **Water treatment plants**—Includes water filtration and water softening plants.
- **Pipeline construction other than sewer or waterlines**—Includes pipelines for the transmission of gas, petroleum products, and liquefied gases.
- **Blast furnaces, petroleum refineries, chemical complexes, etc.**—Includes coke ovens, and mining appurtenances such as tipples and washeries.
- **Other nonbuilding construction**—Includes all types of nonbuilding construction, not included elsewhere.





## APPENDIX B.

### Standard Industrial Classification Titles for Industry Groups and Industries

SIC code	Industry titles	SIC code	Industry titles
<b>15</b>	<b>BUILDING CONSTRUCTION—GENERAL CONTRACTORS AND OPERATIVE BUILDERS</b>	<b>17</b>	<b>CONSTRUCTION—SPECIAL TRADE CONTRACTORS—Con.</b>
<b>152</b>	<b>General Building Contractors—Residential Buildings</b>	<b>173</b>	<b>Electrical Work Special Trade Contractors</b>
1521	General Contractors—Single-Family Houses	1731	Electrical Work Special Trade Contractors
1522	General Contractors—Residential Buildings, Other Than Single-Family	<b>174</b>	<b>Masonry, Stone Work Tile Setting, and Plastering Special Trade Contractors</b>
<b>153</b>	<b>Operative Builders</b>	1741	Masonry, Stone Setting, and Other Stone Work Special Trade Contractors
1531	Operative Builders	1742	Plastering, Drywall, Acoustical, and Insulation Work Special Trade Contractors
<b>154</b>	<b>General Building Contractors—Nonresidential Buildings</b>	1743	Terrazzo, Tile, Marble, and Mosaic Work Special Trade Contractors
1541	General Contractors—Industrial Buildings and Warehouses	<b>175</b>	<b>Carpentry and Floor Work Special Trade Contractors</b>
1542	General Contractors—Nonresidential Buildings, Other Than Industrial Buildings and Warehouses	1751	Carpentry Work Special Trade Contractors
<b>16</b>	<b>HEAVY CONSTRUCTION OTHER THAN BUILDING CONSTRUCTION—CONTRACTORS</b>	1752	Floor Laying and Other Floor Work Special Trade Contractors, Not Elsewhere Classified
<b>161</b>	<b>Highway and Street Construction, Except Elevated Highways</b>	<b>176</b>	<b>Roofing, Siding, and Sheet Metal Work Special Trade Contractors</b>
1611	Highway and Street Construction Contractors, Except Elevated Highways	1761	Roofing, Siding, and Sheet Metal Work Special Trade Contractors
<b>162</b>	<b>Heavy Construction, Except Highway and Street Construction</b>	<b>177</b>	<b>Concrete Work Special Trade Contractors</b>
1622	Bridge, Tunnel, and Elevated Highway Construction Contractors	1771	Concrete Work Special Trade Contractors
1623	Water, Sewer, Pipeline, and Communications and Powerline Construction	<b>178</b>	<b>Water Well Drilling Special Trade Contractors</b>
1629	Heavy Construction, Not Elsewhere Classified	1781	Water Well Drilling Special Trade Contractors
<b>17</b>	<b>CONSTRUCTION—SPECIAL TRADE CONTRACTORS</b>	<b>179</b>	<b>Miscellaneous Special Trade Contractors</b>
<b>171</b>	<b>Plumbing, Heating, and Air-Conditioning Special Trade Contractors</b>	1791	Structural Steel Erection Special Trade Contractors
1711	Plumbing, Heating, and Air-Conditioning Special Trade Contractors	1793	Glass and Glazing Work Special Trade Contractors
<b>172</b>	<b>Painting and Paper Hanging Special Trade Contractors</b>	1794	Excavation Work Special Trade Contractors
1721	Painting and Paper Hanging Special Trade Contractors	1795	Wrecking and Demolition Work Special Trade Contractors
		1796	Installation or Erection of Building Equipment, Special Trade Contractors, Not Elsewhere Classified
		1799	Special Trade Contractors, Not Elsewhere Classified
		<b>6552</b>	<b>LAND SUBDIVIDERS AND DEVELOPERS, EXCEPT CEMETERIES</b>





# **APPENDIX C.**

## **Geographic Divisions and States**

### **NEW ENGLAND STATES**

Connecticut  
Maine  
Massachusetts  
New Hampshire  
Rhode Island  
Vermont

### **MIDDLE ATLANTIC STATES**

New Jersey  
New York  
Pennsylvania

### **EAST NORTH CENTRAL STATES**

Illinois  
Indiana  
Michigan  
Ohio  
Wisconsin

### **WEST NORTH CENTRAL STATES**

Iowa  
Kansas  
Minnesota  
Missouri  
Nebraska  
North Dakota  
South Dakota

### **SOUTH ATLANTIC STATES**

Delaware  
District of Columbia  
Florida  
Georgia  
Maryland

### **SOUTH ATLANTIC STATES—Con.**

North Carolina  
South Carolina  
Virginia  
West Virginia

### **EAST SOUTH CENTRAL STATES**

Alabama  
Kentucky  
Mississippi  
Tennessee

### **WEST SOUTH CENTRAL STATES**

Arkansas  
Louisiana  
Oklahoma  
Texas

### **MOUNTAIN STATES**

Arizona  
Colorado  
Idaho  
Montana  
Nevada  
New Mexico  
Utah  
Wyoming

### **PACIFIC STATES**

Alaska  
California  
Hawaii  
Oregon  
Washington



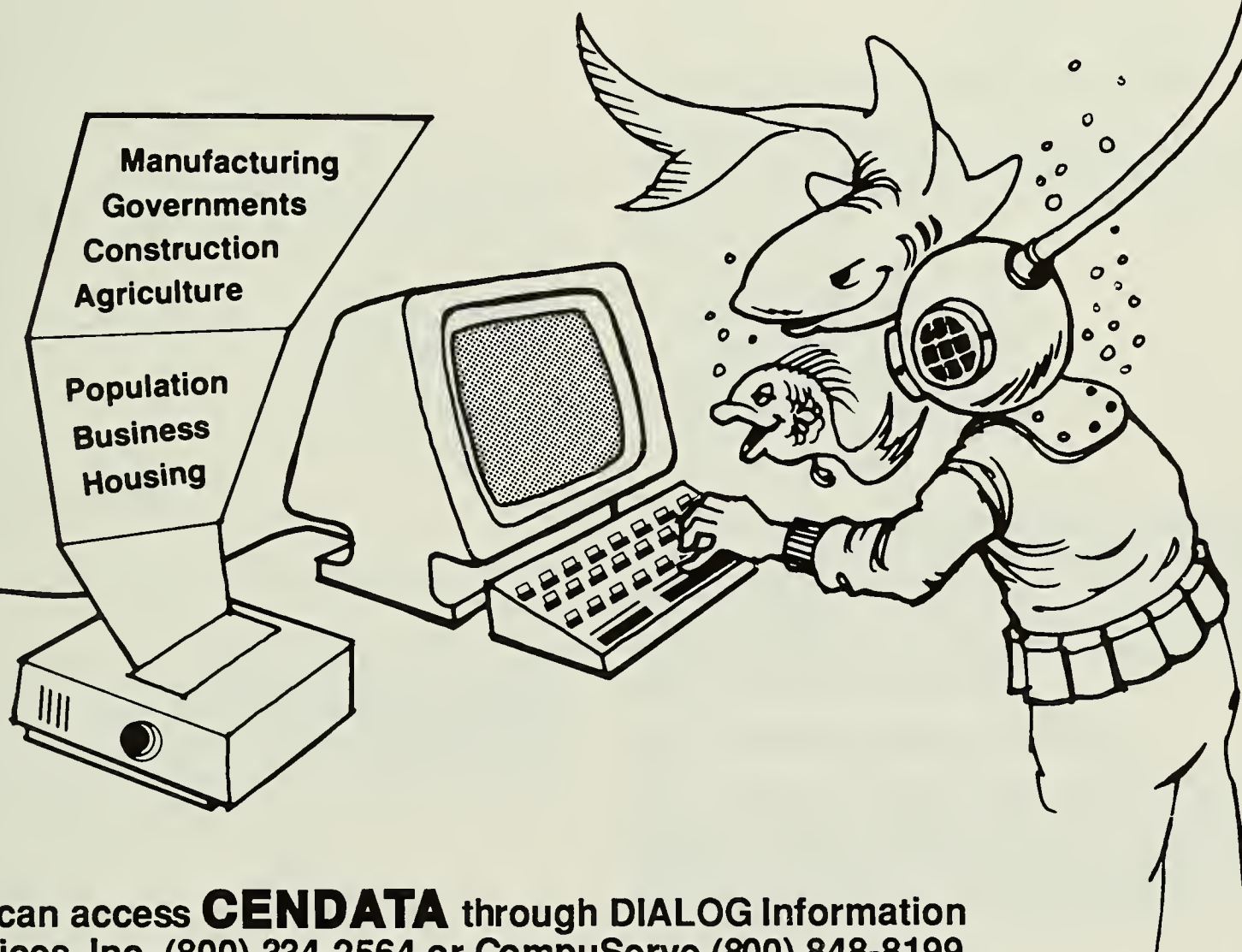


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# PUBLICATION PROGRAM

## 1987 CENSUS OF CONSTRUCTION INDUSTRIES

The Census of Construction Industries is taken once every 5 years. The census covers all establishments engaged in construction, including:

- Building contractors
- Heavy construction contractors
- Special trade contractors (including plumbers, carpenters, painters, electricians)
- Land developers and subdividers

Data products in the Census of Construction Industries are issued in 4 publication series and in 3 other media:

- Printed reports [P]
- CD-ROM [C]
- Computer tape [T]
- Highlights online [+]

## Preliminary Industry Series (CC87-I-1(P) through CC87-I-28(P))

(Available November 1988 through May 1989) [P]

Twenty-seven separate industry reports and a United States summary report, providing national statistics for establishments with payroll. Statistics shown for 1987 include:

- Number of establishments
- Number of employees
- Payroll
- Hours worked
- Value of construction work done, by type of structure
- Selected operating costs

## Final Industry Series (CC87-I-1 through CC87-I-28)

(Available June 1989 through November 1989) [P] [C] [T] [+]

Twenty-seven separate industry reports and a United States summary report, providing statistics for the Nation and individual States on establishments with payroll. These reports update figures from the preliminary industry series (employment, payroll, value of construction, etc.) and provide measures of the following:

- Capital expenditures
- Inventories
- Industry profiles
- Assets
- Depreciation
- And much more

## Geographic Area Series (CC87-A-1 through CC87-A-10)

(Available January 1990 through March 1990) [P] [C] [T] [+]

Nine reports on the construction industries, representing each census geographic division, and a United States summary report. Regional reports provide detailed data for States and metropolitan statistical areas.

## Subject Report—Legal Form of Organization and Type of Operation (CC87-S-1)

(Available May 1990) [P]

One report providing selected national statistics for each industry by legal form of organization and type of operation. This report includes data for establishments with and without payroll. Data in this report include—

- Employment
- Payroll
- Value of construction work done
- Selected operating costs

## OTHER ECONOMIC CENSUSES REPORTS

The Census of Construction Industries is part of the 1987 Economic Censuses. These are conducted at five-year intervals in years ending in 2 and 7 and consist of seven separate censuses:

- Census of Retail Trade
- Census of Wholesale Trade
- Census of Service Industries
- Census of Transportation
- Census of Manufactures
- Census of Mineral Industries
- Census of Construction

...plus several related programs: enterprise statistics; information on minority-owned and women-owned businesses; and the Census of Outlying Areas, including separate economic censuses of Puerto Rico and other outlying areas. The Census of Agriculture and Census of Governments are conducted separately.

## HOW TO ORDER DATA PRODUCTS

Order forms for the specific reports and other data products may be obtained from Data User Services Division, Customer Services (Publications), Bureau of the Census, Washington, DC 20233. If you have any questions, call Census Customer Services 1-(301)-763-4100.

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CC87-1-1

General Contractors—Single-Family Houses

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